LOSSAN
NORTH CORRIDOR STRATEGIC PLAN

LOS ANGELES - VENTURA - SANTA BARBARA -
SAN LUIS OBISPO

DRAFT REPORT

JUNE 2005

IBI GROUP

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Section 1: EXECUTIVE SUMMARY

The LOSSAN North rail corridor runs from Los Angeles to San Luis Obispo. It is the 225-mile northern portion of the 351-mile long Los Angeles to San Diego and San Luis Obispo (LOSSAN) rail corridor, one of the busiest in the nation. It serves a vital function in providing a rail link between the metropolitan areas of Southern California, the Central Coast, and nationwide. It is home to intercity passenger rail, commuter rail, and freight rail services.

The California Department of Transportation's Division of Rail (Department), in connection with the LOSSAN Rail Corridor Agency have determined that a Strategic Plan for the northern portion of the LOSSAN corridor is an important companion piece to the Strategic Plan previously prepared in October 2003 for the 127.5-mile long southern portion between Los Angeles and San Diego.

Objectives of the LOSSAN North Strategic Plan

The objectives of the LOSSAN North Strategic Plan include:

- Fostering better communication and understanding among stakeholders (owners and operators of the rail corridor, governmental agencies, elected representatives, and the public) about prioritization of needs, projects, and timelines for the corridor.
- Developing a strategic plan for the northern segment of the LOSSAN corridor between Los Angeles and San Luis Obispo that complements the LOSSAN South plan.
- Developing an expanded corridor-wide summary document, which integrates the major findings from both the LOSSAN South and LOSSAN North documents.
- Drafting an overall timeline and schedule for future projects.

Overview of the LOSSAN North Corridor

The LOSSAN North rail corridor runs through four counties:

- Los Angeles
- Ventura
- Santa Barbara, and
- San Luis Obispo

The rail line traverses some of California's most scenic and environmentally-sensitive areas, including extended portions directly adjacent to the Pacific Ocean, and opportunities for expansion are limited. The corridor is largely single-tracked (80%) and less developed than the southern portion from Los Angeles to San Diego, in terms of track and signaling system. The rail line was initially laid in the latter portion of the 19th century and early 20th century. While the corridor is strenuously maintained to Federal Railroad Administration (FRA) standards, there are locations in the corridor which still have jointed track rather than continuously welded rail, older signaling systems which require trains to wait

for dispatcher approval by radio in order to advance, and even hand-thrown switches rather than electrically-operated turnout switches. All of these reduce the maximum speed at which trains can travel, and increase the total travel time. Additionally, the long stretches of single-track and relatively short sidings currently found in many locations on the corridor require passenger trains to wait for longer freight trains to clear a section before continuing.

Corridor Ownership

The LOSSAN rail corridor is owned by a number of regional and local agencies, as well as by private freight railroad companies. From north to south, the Union Pacific Railroad (as part of its acquisition of the Southern Pacific Rail Road in 1996) owns the 175 miles of the 351-mile corridor between San Luis Obispo and Moorpark[1]. The Los Angeles County Metropolitan Transportation Authority (MTA), a member agency of the Southern California Regional Rail Authority (SCRRA, operator of Metrolink) owns 100% of the Right of Way (ROW) between Burbank Junction and Los Angeles Union Station, and 50% of the width of the ROW from Burbank Junction to the Los Angeles/Ventura County Line, with UP owning the other 50%. Both SCRRA and UP have trackage rights. Ventura County Transportation Commission (VCTC), also an SCRRA member agency, owns 50% of the width of the ROW from Moorpark to the Ventura/Los Angeles County Line, with UP owning the other 50%.

Within SCRRA member agency-owned portions of the corridor, SCRRA provides dispatching and maintenance; UP pays SCRRA a fee for these functions related to the number of trains it operates in this section. In the UP-owned section of the corridor, UP provides dispatching and maintenance, and Amtrak pays a fee related to the number of trains it operates.

Rail Services along the LOSSAN North Corridor

A number of rail services operate on the LOSSAN North corridor. Amtrak's Pacific Surfliner (operated with state funding) is the primary intercity passenger rail service, and runs between San Luis Obispo, Santa Barbara, Ventura, and Los Angeles (with additional service to Orange County and San Diego). Amtrak's Coast Starlight (service between Los Angeles, the Bay Area, and Portland/Seattle, in addition to stops within the LOSSAN North) also operates on the corridor. Commuter rail service between Los Angeles and Ventura is provided by Metrolink. UP operates freight and goods movement service along the corridor as well.

Impacts of increased Rail Traffic on the LOSSAN North Corridor

The impacts of increased rail traffic on the LOSSAN North corridor are many. Without improvements to increase capacity (such as the projects under study in this Strategic Plan), there is a limit to the number of trains per day that can run on the existing single-track rail corridor. A rise in rail traffic volumes would impact reliability and on-time performance for all trains (intercity and commuter passenger rail, and freight), and increase trip times due to delays. Ultimately

[1] Pacific Surfliner Route FFY 2004-05 Draft Business Plan

capacity issues would preclude the expanded train volumes to meet demand and improve passenger rail service.

Over the next twenty years, planned expansions in existing intercity passenger rail and commuter rail services, as well as increases in freight rail service will require an improved LOSSAN North corridor in order to efficiently operate. In addition to the existing rail services and potential expansions, two new services are proposed or under study: The Coast Daylight, which would provide additional service within the corridor, and would connect downtown Los Angeles with downtown San Francisco, and a potential Ventura-Santa Barbara inter-county commuter rail service.

The Department has made a commitment to the City of Santa Barbara to provide technical assistance in exploring the issues associated with the introduction of a commuter rail service. An initial analysis will be added to the next iteration of the Strategic Plan as it is developed.

Purpose and Need for Improvements

The purpose of improvements to the LOSSAN North rail corridor is to help meet the current and projected demand for travel within and between metropolitan areas of Southern California and the Central Coast by:

- Improving rail capacity to meet demand for all types of rail services, including intercity, commuter, and freight/goods movement
- Developing the LOSSAN North rail corridor in order to provide faster, safer, and more reliable passenger rail service, and
- Making rail travel a more-viable transportation alternative

The need for improvements to the LOSSAN North corridor is driven by several factors, including:

- Growth in population, employment, and travel demand. Over the next twenty years, California's population is projected to rise from approximately 35.3 million (California Department of Finance, March 2004) to over 44 million. The LOSSAN North corridor has seen a dramatic increase in population, especially in Ventura County. Employment within the study area has also increased, but is concentrated in employment centers within the metropolitan Los Angeles area, as well as in Santa Barbara and San Luis Obispo. This imbalance in the jobs/housing equation has led to longer commutes and increased traffic congestion.
- Capacity of the intercity transportation system. Current capacity is inadequate to meet the projected increase in travel demand, as well as the rising demand for goods movement as our economy (both in California and nationally) relies increasingly on imported goods shipped to Southern California ports and carried by rail.

- Travel time is an important determinant of mode choice. The rail improvement projects in this Strategic Plan could reduce total travel time between Los Angeles, Santa Barbara, and San Luis Obispo by up to 25 percent.
- Reliability. Maintaining on-time performance is a key consideration, and delays in one portion of the corridor have a ripple effect elsewhere. The current on-time performance goal for the Pacific Surfliner service is 85%, and the projects in this Strategic Plan would help significantly increase reliability and on-time performance.
- Cost-effectiveness – The State of California supports the Pacific Surfliner service. Improvements that increase capacity, reduce travel time, and improve reliability help maintain and attract ridership on the service. Additional ridership maximizes the cost-effectiveness of the state's funding (by reducing subsidies), allowing funds to be used on other rail improvements or to expand service. Moreover, the efficiencies as a result of rail improvements carry over to all users of the rail corridor, and benefit commuter rail and freight services as well, making them even more cost-effective.

The Public Outreach Effort

The Strategic Plan process began with a series of Public Information and Stakeholder meetings held in cities along the corridor. Five stakeholder meetings and four public information meetings were held. These meetings provided attendees with an overview of the corridor and the rail improvements under study, including information on:

- The Study Context – the purpose of the study and the need for improvements to the corridor
- Rail corridor facts
- Current and projected train volumes (of existing and proposed rail services)
- Types of rail improvements under consideration
- Existing timeline for proposed projects by county San Luis Obispo, Santa Barbara, Ventura, and Los Angeles
- The planning process / next steps

At each meeting, staff representing the Department, LOSSAN, the local transportation agency (VCTC, SBCAG, or SLOCOG), and the consultant were available to answer questions.

Rail Improvement Projects

Many of the projects described in this plan were initially developed as part of the Amtrak-sponsored 20-Year Plan (2001). This document provides descriptions of the rail improvement projects studied, the proposed timeline for their potential construction/implementation, and their costs.

The rail improvement projects are described in this document from north to south and organized by county, beginning with projects in San Luis Obispo County and ending with projects at Los Angeles Union Station. Figure ES-1 shows the generalized locations of all the rail improvement projects studied in this plan.

Types of projects studied include:

- Track and signal upgrades
- Construction of second/third main tracks
- Sidings and siding extensions
- Grade separations
- Curve realignments
- Station improvements, and
- Other corridor-wide improvements

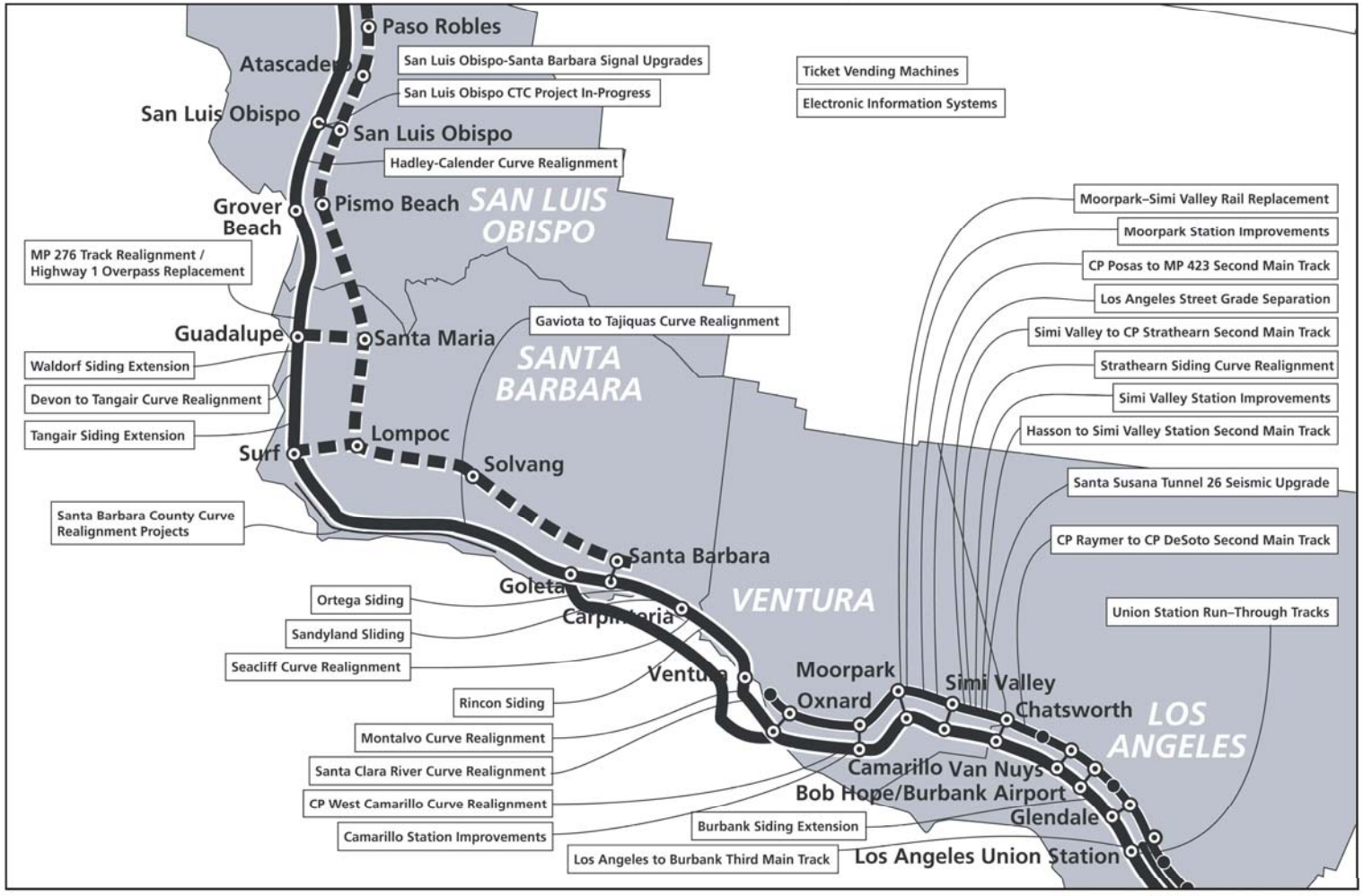
Timeline for Projects

The timeline for the projects identified in this plan are prioritized into three phases:

- Immediate – Projects in this category would be completed within 0 to 3 years
- Near-term – Projects in this category would be completed within 4 to 8 years
- Vision – Projects in this category would be completed within 9 to 20 years

The proposed timeline category for each project assumes that funding for the projects would be available and programmed, and that each project had obtained all necessary environmental clearances and permits.

Figure ES-1
Projects Under Study
LOSSAN North Corridor Strategic Plan



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Tables ES-1 through ES-3 identify the projects by their proposed Timeline categories: Immediate, Near-term, and Vision:

Table ES-1
Immediate Projects (0-3 years)

Project Number	Project Name	Current Timeline	Estimated Project Cost
SB-02	Waldorf Siding Extension	Immediate	$15M
SB-04	Tangair Siding Extension	Immediate	$22M
SB-06	Goleta Station Improvements	Immediate	$700K
SB-07	Santa Barbara Station Improvements	Immediate	$522K
SB-08	Ortega Siding	Immediate	$18M
SB-11	Seacliff Siding North	Immediate	$18M
V-04	Camarillo Station Improvements	Immediate	$7M
V-05	Moorpark to Simi Valley Rail Replacement	Immediate	$24M
V-07	CP Posas to MP 423 Second Main Track	Immediate	$45M
V-08	Simi Valley to CP Strathearn Second Main Track	Immediate	$37M
V-10	Simi Valley Station Improvements	Immediate	$6M
V-13	Santa Susan Tunnel 26 Seismic Upgrade	Immediate	$13M
LA-02	Los Angeles to Burbank Third Main Track	Immediate	$165M
LA-04	Burbank Junction Track Realignment	Immediate	$8.5M
LA-05	Union Station Run-Through Tracks	Immediate	$535M
Subtotal Costs for Immediate Projects			$914.722M

Table ES-2
Near-Term Projects (4-8 years)

Project Number	Project Name	Current Timeline	Estimated Project Cost
SB-09	Sandyland Siding	Near-Term	$18M
SB-10	Rincon Siding	Near-Term	$18M
SB-12	Seacliff Curves Realignments	Near-Term	$8.5M
V-01	Montalvo Curve Realignments	Near-Term	$1.1M
V-02	Santa Clara River Curve Realignment	Near-Term	$5M
V-03	CP West Camarillo Curve Realignments	Near-Term	$165M
V-06	Moorpark Station Improvements	Near-Term	$1M
V-09	Strathearn Siding Curve Realignment	Near-Term	$0.5M
LA-01	CP Raymer to CP DeSoto Second Main Track	Near-Term	$40M
LA-03	Burbank Siding Extension	Near-Term	$165M
Subtotal Costs for Near-Term Projects			$422.1M

Table ES-3
Vision Projects (9-20 years)

Project Number	Project Name	Current Timeline	Estimated Project Cost
SLO-3	Hadley – Calendar Curve Realignments	Vision	$145M
SB-01	MP 276 Track Realignment and Highway 1 Overpass Replacement	Vision	$42M
SB-03	Devon to Tangair Curve Realignments	Vision	$165M
SB-05	Santa Barbara County Curve Realignment Projects	Vision	$586M
V-11	Los Angeles Street Grade Separation	Vision	$75M
V-12	Hasson to Simi Valley Station Second Main Track	Vision	$33M
Subtotal Costs for Vision Projects			$1.046B
Total Costs for All Projects			$2.382B

The Strategic Planning Process/Next Steps

The Strategic Plan's development was overseen by a Technical Working Group, whose members included representatives from:

- The Department
- LOSSAN Rail Corridor Agency (staffing support through the San Diego Association of Governments)
- Ventura County Transportation Commission
- Santa Barbara County Association of Governments
- San Luis Obispo Council of Governments
- Amtrak
- Metrolink, and
- Union Pacific

Next Steps

Integration of the LOSSAN North and South Corridors

Following a period of public comment and document revision, the LOSSAN North Strategic Plan will be finalized. The LOSSAN North Strategic Plan will be integrated with the Strategic Plan developed earlier for the LOSSAN South corridor. The combined documents will serve as an important tool for the future development of the LOSSAN rail corridor.

For the LOSSAN South corridor the Department, in partnership with the Federal Railroad Administration (FRA), is in the process of finalizing a Tier 1 Environmental Impact Statement/Environmental Impact Report (PEIR/PEIS). This program-level document comprises projects throughout the LOSSAN South portion of the corridor. The program-level review makes projects available for federal rail funding. The PEIR/PEIS considers cumulative potential impacts of the projects and identifies potential mitigation strategies, which can help expedite project-level environmental clearance.

The Department, in consultation with the appropriate stakeholder groups, could make a decision in the future as to whether or not a similar Program-level examination of the projects in the LOSSAN North corridor is desirable, or whether to move directly to individual project-level environmental review of projects.

LOSSAN Corridor-wide Strategic Plan Summary

The executive summaries and other important highlights from both the LOSSAN North and LOSSAN South Strategic Plans will be combined to create a LOSSAN Corridor-wide Strategic Plan Summary. This document will serve as an introduction to and summary of the two Strategic Plans and an overall guide to the entire 351-mile LOSSAN rail corridor.

Implementing the Rail Improvement Projects

The LOSSAN North Strategic Plan documented the purpose and need and outlined a schedule for improvements to the rail corridor from Los Angeles to San Luis Obispo. The LOSSAN Corridor-wide Strategic Plan will provide the Department, Amtrak, LOSSAN and its member agencies, as well as SCRRA, North County Transit District (NCTD), and UP with a program of priorities they can use in programming projects for implementation and construction. As federal, state, local and other funds become available, this document will serve as the first step in improvements to the LOSSAN rail corridor.

Section 2: INTRODUCTION AND BACKGROUND

The LOSSAN North Strategic Plan (Strategic Plan) provides a thorough review of the rail corridor between Los Angeles, Ventura, Santa Barbara, and San Luis Obispo (LOSSAN), and lays out a vision for improvement over the next twenty years.

This section provides an introduction to the Los Angeles – San Diego – San Luis Obispo (LOSSAN) rail corridor and to the Strategic Plan, including:

- An overview of the corridor
- The background to the development of the Strategic Plan for the LOSSAN corridor
- The agencies and organizations responsible for the Plan's development
- A brief discussion of previous planning studies and how they relate to the Strategic Plan

Introduction

The 351 mile-long LOSSAN rail corridor connects major metropolitan areas of Southern California and the Central Coast, serves some of the most populous areas of the state, and runs through six counties: San Luis Obispo, Santa Barbara, Ventura, Los Angeles, Orange, and San Diego (from North to South). Not only does the corridor pass through some of California's most densely populated regions, but it also transits some of the most scenic and environmentally-sensitive areas in the state.

The rail corridor is home to a variety of rail services: intercity passenger rail service, commuter rail service, and freight and goods movement services.

Intercity passenger rail services are provided by the National Rail Passenger Corporation (Amtrak) and include: the Pacific Surfliner (with funding support from the State of California), the Coast Starlight and the Southwest Chief. The Pacific Surfliner service has enjoyed record ridership increases over the past five years, with over 2.34 million passengers in Fiscal Year 2004 (October 2003 through September 2004), making it the second-busiest corridor in the nation.

Two commuter rail services operate on the LOSSAN corridor. The Southern California Regional Rail Authority's Metrolink serves five counties in Southern California: Ventura, Los Angeles, Orange, Riverside, and San Bernardino (with a connection to the Coaster in Oceanside). The North County Transit District's Coaster serves coastal San Diego County from Oceanside to San Diego.

Freight and goods movement rail services are operated on the LOSSAN corridor by the Union Pacific Railroad and the Burlington Northern Santa Fe Railway Company.

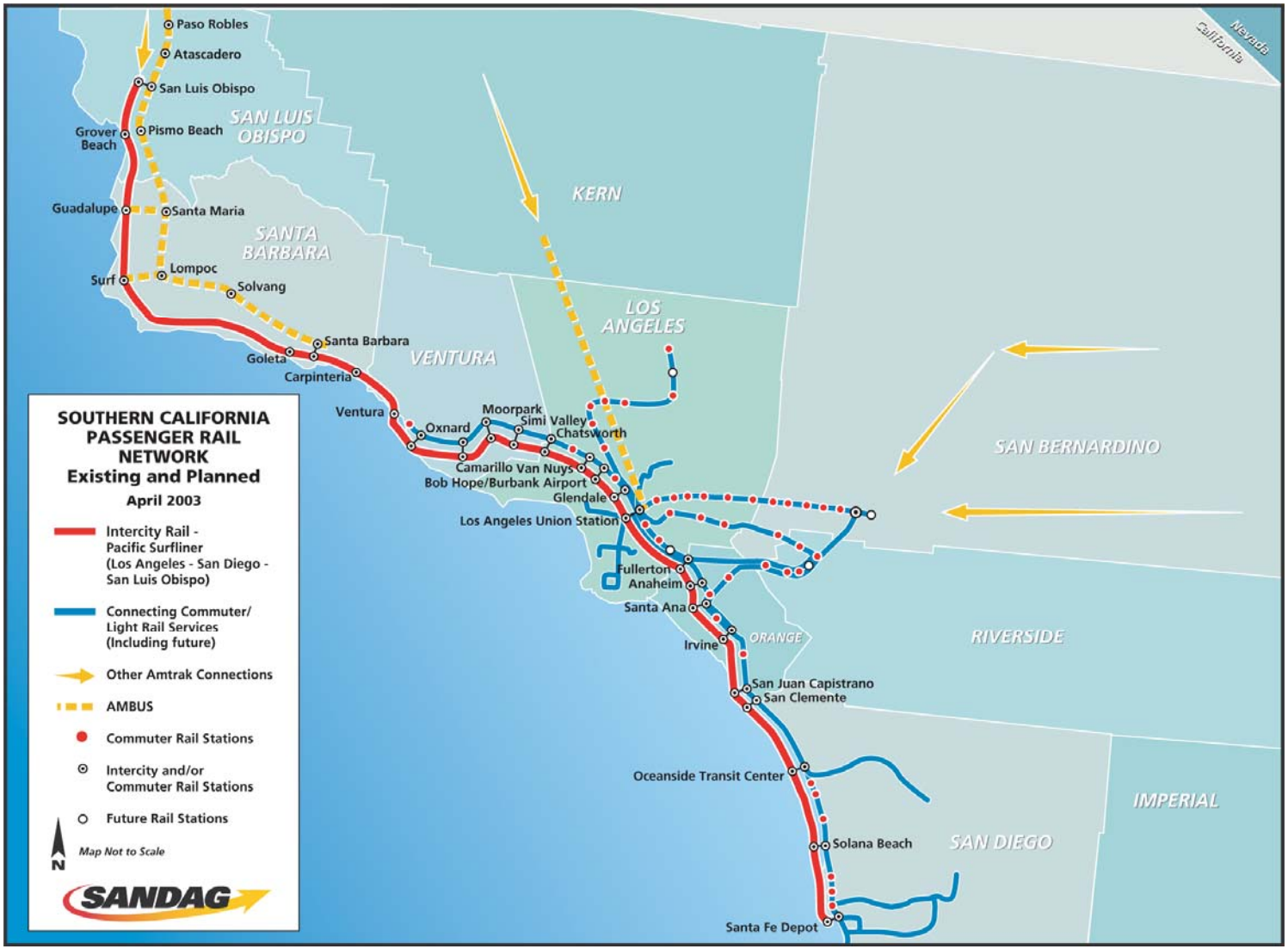


Figure 1-1 Map of the Southern California Rail Transportation Network and the LOSSAN Rail Corridor

The LOSSAN North rail corridor runs through four counties:

- Los Angeles
- Ventura
- Santa Barbara, and
- San Luis Obispo

In the northern portion, the LOSSAN corridor includes extended portions directly adjacent to the Pacific Ocean, and opportunities for expanding the corridor are limited by proximity to the ocean, as well as to the 101 Freeway. North of Los Angeles, the corridor is largely single-tracked (80%) and the track and signaling systems are less developed than the southern portion from Los Angeles to San Diego. The rail line was initially laid in the latter portion of the 19th century and early 20th century. While the corridor is strenuously maintained to Federal Railroad Administration (FRA) standards, there are locations in the corridor which still have jointed track rather than continuously welded rail, older signaling systems which require trains to wait for dispatcher approval by radio in order to advance, and hand-thrown switches rather than electrically-operated turnout switches. All of these factors reduce the maximum speed at which trains can travel, and increase the total travel time. Additionally, the long stretches of single-track and relatively short sidings currently found in many locations on the corridor require passenger trains to wait for freight trains to clear a section before continuing.

Strategic Planning for the LOSSAN Corridor

In 2001, the California Department of Transportation (the Department), began studying a series of improvements to the LOSSAN rail corridor as part of its support for the Pacific Surfliner service. The Department's Proposed Rail Corridor Improvement Studies covered that portion of the corridor between Los Angeles Union Station and San Diego Santa Fe Depot.

In October 2003, the Department completed the LOSSAN Strategic Business Plan, a more recent effort to study improvements in the Los Angeles to San Diego segment of the corridor (referred to in this document as the LOSSAN South Strategic Plan). In September 2003, as the LOSSAN South Strategic Plan was nearing completion, the Board of the LOSSAN Rail Corridor Agency discussed the need for an updated long-range vision for the entire rail corridor. In October 2004, the LOSSAN Agency's Technical Advisory Committee (LOSSAN TAC) received Board approval to expand the plan to represent the entire LOSSAN corridor.

Participating Agencies and Organizations (Technical Working Group)

The Department, through its Division of Rail, is the sponsoring agency for the LOSSAN North Strategic Plan. The Department provides support, funding, and planning assistance for three intercity passenger rail services operated by Amtrak, including the Pacific Surfliner. This assistance includes operating assistance and capital funding for rail improvement projects, station construction and maintenance, and equipment purchases and maintenance. For the

LOSSAN North Strategic Plan, Caltrans provided planning and technical assistance, as well as funding for the study.

Other agencies and organizations participating in the development of the Strategic Plan, and their roles are described in the paragraphs below. Representatives of each of the agencies formed a Technical Working Group to oversee the Strategic Plan's development and to provide technical input and oversight into the process.

The LOSSAN Rail Corridor Agency is a joint powers agency formed in 1989 to oversee the LOSSAN corridor. The agency's board is composed of officials representing rail owners, operators, and planning agencies along Amtrak's Pacific Surfliner corridor between San Diego and San Luis Obispo. The objective of the agency is to coordinate planning and programs that increase ridership, revenue, reliability, and safety on the coastal rail line. The San Diego Association of Governments (SANDAG) provides staffing for the LOSSAN Rail Corridor Agency, and served as the Project Manager for the LOSSAN North Strategic Plan study.

The National Passenger Rail Corporation (Amtrak) provides two intercity passenger rail services on the LOSSAN North corridor: the Pacific Surfliner service between San Diego and San Luis Obispo (funding provided by the State of California under contract with the Department), and the Coast Starlight, which operates between Los Angeles and Seattle, Washington. Amtrak provided planning and technical assistance used in developing the LOSSAN North Strategic Plan.

The Southern California Regional Rail Authority (Metrolink) operates commuter rail service in five Southern California counties (including Los Angeles and Ventura counties within the study area). A Metrolink member agency owns a portion of the LOSSAN North corridor between Los Angeles and Moorpark, and Metrolink has a shared-use agreement with Union Pacific between Moorpark and Montalvo. Metrolink provided planning and technical assistance used in developing the LOSSAN North Strategic Plan.

The San Luis Obispo Council of Governments (SLOCOG), Santa Barbara County Association of Governments (SBCAG), and Ventura County Transportation Commission (VCTC) are Regional Transportation Planning Agencies and Metropolitan Planning Organizations within the LOSSAN North corridor study area, and as such are, as described by SLOCOG: "responsible for a wide variety of actions that support a continuous, comprehensive, coordinated planning process that will help assure the development of an efficient, coordinated and balanced transportation system that meets (local) mobility needs." Representatives of these agencies provided localized technical and planning assistance used in developing the LOSSAN North Strategic Plan, as well as facilitated and hosted stakeholder and public information meetings in cities throughout the LOSSAN North corridor study area.

The Union Pacific Railroad owns most of the rail right-of-way in the LOSSAN North corridor study area, and operates freight service along it. Union Pacific representatives provided information and assistance to the Technical Working Group.

Related Planning Studies

A number of previous studies and planning documents relating to the improvement of the LOSSAN North corridor are incorporated into this plan. They provide background about previous and on-going efforts to improve the LOSSAN North corridor.

Brief descriptions of the relevant studies' contents are provided below, followed by a discussion of how their findings will be incorporated in the LOSSAN North Strategic Plan.

California Passenger Rail System 20-Year Improvement Plan

Amtrak sponsored a collaborative effort with stakeholders that resulted in the development of the California Passenger Rail System 20-Year Improvement Plan (Amtrak-sponsored 20-Year Plan), released in March 2001.

The Amtrak-sponsored plan discussed the dramatic growth in California's population, and explained how this growth has led to a demand for transportation that exceeds the capacity of the transportation network. The plan noted how rail offers the ability to address the demand for increased mobility in a very cost-effective way, as investments in rail improvement projects benefit both passenger rail (intercity and commuter) and freight rail services.

Finally, the plan modeled the corridors, costed out projects, and using a three-increment system of Immediate (within the next 3 years), Near-term (within the next 4-8 years), and Vision (within the next 20 years) timelines, laid out a plan for the improvement of California's four major rail corridors:

- The Capitol Corridor, which operates between Auburn and San Jose
- The San Joaquins Corridor, which operates between Bakersfield, Sacramento, and the San Francisco Bay Area (with connecting bus service between Los Angeles and Bakersfield)
- The Pacific Surfliner Corridor, which operates between San Diego and San Luis Obispo, and
- The Coast Corridor between Los Angeles and the San Francisco Bay Area

The LOSSAN North Strategic Plan, using the same incremental timeline, updates appropriate Pacific Surfliner projects from the Amtrak-sponsored 20-Year Plan to reflect their current status (such as eliminating those projects completed since the release of the plan in 2001). The costs associated with each project have been revised to Year 2005 dollars (from their original Year 2000 costs) to provide current information on corridor improvement projects.

Additionally, the LOSSAN North Strategic Plan contains a discussion of the proposed Coast Daylight service, which would provide direct rail service between Los Angeles, the Central Coast, Salinas, San Jose, and San Francisco in addition to the Coast Starlight service. Many of the proposed rail improvement projects in the LOSSAN North Corridor study area would help facilitate the creation of this important new service and the reliability of the current services. The additional train volumes projected for the Coast Daylight service were also

taken into consideration when determining rail capacity requirements over the timeframe of the Strategic Plan.

The Amtrak-sponsored 20-Year Plan also detailed how the improvement projects would lead to expansions in service capacity and would dramatically reduce travel times, providing increased mobility and attracting even higher levels of rail ridership.

California State Rail Plan 2003-04 to 2013-14

California law requires the Department to complete a ten year State Rail Plan with elements for both passenger rail and freight services. This ten-year State Rail Plan is updated every two years. The most recent version is the State Rail Plan for the period between Fiscal Years 2003-2004 and 2013-14. The State Rail Plan is consistent with the Amtrak 20-Year Plan.

The State Rail Plan serves as the overarching policy document for the Department's involvement in rail throughout the state, and discusses:

- The State's vision for intercity passenger rail
- The State's role in supporting rail passenger service
- The relationship between passenger rail services and freight rail companies, which in most areas own the lines on which the passenger rail services operate
- The available sources for funding intercity passenger rail
- The Intercity Rail Capital Program
- The Department's operating relationship with Amtrak, and issues relating to the debate regarding Amtrak's future.

For the LOSSAN North Strategic Plan, information contained within the State Rail Plan was reviewed and incorporated where appropriate.

Pacific Surfliner Route FFY 2004-05 Business Plan

A business plan for the enhancement of the Pacific Surfliner Route (Surfliner Business Plan) is produced biannually by the Department. The Surfliner Business Plan details the Department's efforts to support existing and planned service levels, marketing, and connecting bus service, and includes a capital plan detailing expenditures for stations and related improvements, track and signal improvements, maintenance and layover facilities, and new equipment.

While both plans are consistent, the Department's California State Rail Plan looks at a longer-term 10-Year planning timeline for rail services. The Pacific Surfliner Business Plan allows for adjustments to programs and projects to address immediate needs.

Information on activities and improvements planned for FY 2005 were used in the development of the Strategic Plan.

Metrolink Commuter Rail Strategic Assessment (In progress - expected early 2006)

Metrolink is in the process of completing a Strategic Assessment for its system, which is expected to be completed by early 2006. This Strategic Assessment will address rail capacity issues, and needed improvements to stations and infrastructure to support expanded commuter rail services. While the final Strategic Assessment was unavailable during the development of the LOSSAN North Strategic Plan, some pertinent information was made available for this study, such as 2025 potential daily Metrolink train volumes.

In particular, future commuter rail service levels for the Ventura line will be used in showing the capacity constraints expected in the corridor, and supports the need for new sidings, double-tracking, and other rail capacity improvements to allow for reliable operations of all rail services.

101 In Motion Program

The 101 In Motion Program, sponsored by SBCAG, began in October 2003 as an effort to identify short-and long-term mobility solutions for Santa Barbara County, and will be completed in Fall 2005. The 101 Freeway is the major North-South link through Santa Barbara County. Increased congestion and delays associated with the growth in population in the "South Coast" area of Santa Barbara and Ventura County, as well as a jobs/housing imbalance have helped spur this effort.

Among the potential solutions being studied is providing a commuter rail service that would operate during peak periods between Ventura County and Santa Barbara County. This service would share the same rail line in the LOSSAN North Corridor. Consideration of its potential implications for rail capacity, as well as its impact on the need for improvements to the corridor makes its inclusion of the proposed commuter rail service in the LOSSAN North Strategic Plan important.

Section 3: OVERVIEW OF THE LOSSAN NORTH CORRIDOR

The LOSSAN North rail corridor serves some of the most populous areas in the Southern and Central Coast regions of California, and traverses some of the most scenic and environmentally-sensitive areas in the state. This section will provide an overview of the corridor, by county, and includes information on the generalized land uses adjacent to the rail line, the communities through which the corridor passes, and the locations of rail stations (both intercity and commuter rail).

Corridor Ownership

The LOSSAN rail corridor is owned by a number of regional and local agencies, as well as by private freight railroad companies. From north to south, the Union Pacific Railroad (as part of its acquisition of the Southern Pacific Rail Road in 1996) owns the 175 miles of the 351-mile corridor between San Luis Obispo and Moorpark[2]. The Los Angeles County Metropolitan Transportation Authority (MTA), a member agency of the Southern California Regional Rail Authority (SCRRA, operator of Metrolink) owns 100% of the right-of-way (ROW) between Burbank Junction and Los Angeles Union Station, and 50% of the width of the ROW from Burbank Junction to the Los Angeles/Ventura County Line, with UP owning the other 50%. Both SCRRA and UP have trackage rights. Ventura County Transportation Commission (VCTC), also an SCRRA member agency, owns 50% of the width of the ROW from Moorpark to the Ventura/Los Angeles County Line, with UP owning the other 50%.

Within SCRRA member agency-owned portions of the corridor, SCRRA provides dispatching and track maintenance; UP pays a fee for these functions, related to the number of trains it operates in this section. In the UP-owned section of the corridor, it provides dispatching and track maintenance. Metrolink trains pay a fee to UP for these functions, and Amtrak trains pay UP an incremental cost for dispatching and maintenance on UP-owned sections of the corridor.

Overview of the Corridor by County

Los Angeles County

Land Uses

The LOSSAN North rail corridor begins at Los Angeles Union Station. There is a broad mix of land uses in this urbanized downtown area: from high-density residential, to commercial office and retail, industrial and institutional. From Los Angeles to Burbank, the general character adjacent to the rail corridor remains a mix of commercial and industrial uses.

North of Burbank (Bob Hope) Airport, the land uses next to the corridor begin to transition to a more suburban character. The density is greatly reduced, and the

[2] Pacific Surfliner Route FFY 2004-05 Draft Business Plan

land uses are more light industrial, commercial/retail, and residential in nature. By the time the corridor reaches the city of Chatsworth, the nature of the adjacent land use has transitioned from suburban to rural, with scattered residential development, parklands, agricultural uses, and open land.

Corridor Communities

In Los Angeles County, the LOSSAN North corridor passes through the cities and communities of:

- Los Angeles
- Glendale
- Burbank
- Van Nuys
- Northridge, and
- Chatsworth

Current services that operate along the corridor in Los Angeles County include Amtrak intercity passenger rail service (Pacific Surfliner and Coast Starlight), Metrolink commuter rail service, and Union Pacific freight rail service.

Stations

Los Angeles County stations currently served by intercity and/or commuter rail services include:

- Los Angeles Union Station (LAUS)
- Glendale Station
- Downtown Burbank Station (Metrolink Commuter Rail only)
- Burbank/Bob Hope Airport Station
- Van Nuys Station
- Northridge Station (Metrolink Commuter Rail only)
- Chatsworth Station

Ventura County

Land Uses

The land uses adjacent to the LOSSAN Corridor in the hilly, eastern portion of Ventura County are primarily rural, with scattered residential development, parklands, agricultural uses, and open land. As the corridor passes through the cities of Simi Valley and Moorpark the land use intensifies to suburban again, with nearby commercial/retail and light industrial uses. Agricultural uses predominate as the corridor travels westward toward the Pacific Ocean, until it passes through the City of Camarillo, a rapidly growing city with increasing residential and associated commercial/retail uses. West of Camarillo, agricultural uses dominate again until the corridor reaches Oxnard.

Oxnard is Ventura County's largest city, and the land uses next to the LOSSAN North corridor reflect this increased density, and consist of residential, commercial and light industrial uses. The rail corridor then turns north, passes through the center of Oxnard parallel to the ocean, until it reaches Ventura and the 101 Freeway, where it turns westward again. From this point north, the rail corridor generally parallels the 101 Freeway corridor.

The rail corridor passes through the Ventura County Fairgrounds (a station stop is located there). The corridor also passes next to, but does not run through, San Buenaventura State Beach Park.

At Ventura, the rail line begins to follow a coastal alignment as it moves northward. The rail right-of-way varies from being located on the oceanside of the 101 Freeway to being inland of the freeway, depending on the terrain. The rail line is also in close proximity to coastal bluffs, and is subject to slide movements, as was the case in the storms of Winter 2005.

Corridor Communities

In Ventura County, the LOSSAN North corridor passes through the cities and communities of:

- Simi Valley
- Moorpark
- Camarillo
- Oxnard, and
- Ventura

Stations

Ventura County Stations currently served by intercity and/or commuter rail services include:

- Simi Valley Station
- Moorpark Station
- Camarillo Station
- Oxnard Station
- Ventura Station

Santa Barbara County

Land Uses

The LOSSAN North Corridor is generally located directly along or very close to the coastline for much of its length in Santa Barbara County. The nature of the land uses in the southern portion are largely open space until Carpenteria, at which point the land uses become residential with supportive commercial and retail, as befits the nature of this small coastal community. This lower-density

residential character continues through Montecito, and becomes more dense and urbanized as the corridor approaches Santa Barbara.

North of Santa Barbara the corridor parallels Highway 101 as it passes through the urbanized south coast. Residential and industrial uses border the corridor. At the Goleta rail station, there is a layover facility for Pacific Surfliner trains. After Goleta, the land uses become very rural, as the corridor wends its way along the coast.

The corridor passes through three units of the California State Park System (El Capitan Beach State Park, Refugio Beach State Park, and Gaviota State Park). After Gaviota State Park, the LOSSAN North corridor transits Vandenberg Air Force Base, staying along the coast until just south of San Luis Obispo county, near Guadalupe. Within Vandenberg, the land uses are institutional, with occasional military facilities near the rail line.

Corridor Communities

The LOSSAN North corridor passes through or next to the following Santa Barbara County communities:

- Carpenteria
- Summerland
- Montecito
- Santa Barbara
- Goleta
- Vandenberg Air Force Base, and
- Guadalupe

Stations

Santa Barbara County stations served by intercity rail service (there is currently no commuter rail service in Santa Barbara County) include:

- Carpinteria Station
- Santa Barbara Station
- Goleta Station
- Surf/Lompoc Station
- Guadalupe Station

San Luis Obispo County

Land Uses

Southern coastal San Luis Obispo County is generally rural in character. The LOSSAN rail corridor remains inland north of Guadalupe, as it passes west of the small community of Callender. Land uses here remain scattered residential, agricultural, and some industrial.

The rail corridor returns to the coast as it passes through Oceano and Grover Beach. This area can be characterized as suburban in character, with residential, commercial, and retail. The Grover Beach rail station is located at the heart of the city's redevelopment area, and at a popular access point to Oceano Dunes State Vehicular Recreation Area. North of Grover Beach, the rail line passes next to, but not through, Pismo Beach State Beach. The rail corridor next passes through the coastal community of Pismo Beach. Pismo Beach features fairly dense residential, commercial/retail/hotel land uses. The LOSSAN North corridor returns to an inland alignment, paralleling Price Canyon Road and State Route 227, with limited residential development and agricultural land uses, as it nears San Luis Obispo. Finally, the LOSSAN North corridor enters the urbanized area of San Luis Obispo, with its mix of residential and commercial uses. The corridor ends at the San Luis Obispo rail station, where a layover facility is located to store one train overnight. Surrounding land uses include residential properties and a small commercial/retail district adjacent to the station.

Corridor Communities

The LOSSAN North corridor passes through or next to the following San Luis Obispo County communities:

- Callender
- Oceano
- Grover Beach
- Pismo Beach, and
- San Luis Obispo

Stations

San Luis Obispo County stations currently served by intercity rail service include:

- Grover Beach Station
- San Luis Obispo Station

Other Corridor-Related Issues

There are a number of other issues related to the operation of rail services on the LOSSAN North corridor that need to be recognized and considered in the development of projects, as well as during the environmental clearance phase of project development. These issues include noise, safety and enforcement, and environmental considerations.

Noise

The noise associated with the operation of trains within the LOSSAN North corridor is particularly felt in residential neighborhoods through which the rail corridor runs, as well as near station areas and at-grade crossings. The biggest issue is the loudness and duration of the train's horn, which must (by FRA regulations) be sounded:

- Whenever the train begins to move (at a station, or after a stop enroute – such as at a siding)
- As the train approaches an at-grade crossing
- Or in other areas where it is necessary to sound a warning (such as locations where pedestrians have been seen trespassing on the rail right-of-way).

For safety reasons, the sound of the train's horn is deliberately loud, and, depending on the local conditions, it can be heard from a distance. Options available for reducing the times and locations at which a train needs to sound its horn include:

- Closing the crossing entirely
- Grade separation, which would eliminate the need to sound the train horn by relocating the roadway over or under the rail line
- The establishment of a "Quiet Zone". The FRA has established a final rule which would allow communities to establish "Quiet Zones" after certain safety measures have been undertaken. For more information on the Quiet Zone rule, visit http://www.fra.dot.gov/us/content/1318.

Safety and Enforcement

Growth in the movement of people and goods by auto and rail over the next twenty years underscores the need for improved safety. With more vehicles crossing the tracks, and more frequent and faster trains, the potential for rail/automobile collisions increases.

Projects, such as 4-quadrant crossing gates, medians to prevent cars from encroaching on a crossing when a train is approaching, and grade separations can greatly improve the safety of both train and automobile transportation. Grade separations, although the most costly crossing safety improvement alternative, provide maximum safety to pedestrians, train passengers, and automobile drivers. Grade separations should be considered where appropriate as part of all corridor improvements.

Because of its proximity to the coast in many locations, the presence of the rail track creates a barrier to coastal access or from one side of a community to another. Locations where the public currently crosses the track to access their destination represent opportunities to improve pedestrian safety and access by constructing grade-separated pedestrian bridges or undercrossings. These would improve pedestrian safety, reduce trespasser issues, and could possibly reduce the need to use the locomotive horn to warn people of an approaching train. This, accompanied by increased enforcement, would improve pedestrian safety while increasing public beach access.

Identification of locations where pedestrians trespass across rail lines to get to their destination, and the provision of appropriate measures (pedestrian crossings, education programs, enforcement efforts, etc.) to reduce trespasser activity should be a continuing effort.

Environmental Considerations

The impacts of the rail line on wetlands, beaches, coastlines, wildlife habitats, and other environments will need to be considered and appropriate mitigation strategies identified as rail improvement projects move forward.

Section 4: RAIL SERVICES ALONG THE LOSSAN NORTH CORRIDOR

There are three major categories of rail services provided on the LOSSAN North corridor: intercity passenger rail, commuter rail, and freight rail. The following sections provide a description of each, as well as information on the types of equipment used, numbers of trains per day, and assessments of future service levels. Additionally, this section discusses new intercity passenger rail and commuter rail services planned for or under study that would operate within the LOSSAN North corridor.

How Commuter Rail differs from Intercity Rail

Commuter rail service differs from intercity passenger rail service in a number of ways. While intercity rail service is designed for travel **between** metropolitan areas, commuter rail is generally designed for travel **within** a metropolitan area or between regions. Service levels are also substantially different. Whereas intercity rail service is provided seven days a week, with departures spread throughout the day and evening, commuter rail service is generally offered during the work week (Monday – Friday), with most trains during the morning and afternoon/evening commute peak hours, and with most service in the peak direction of travel (toward major employment centers in the morning, and away from them in the evening). Finally, commuter rail service generally stops more frequently, and it serves more stations than intercity rail.

Intercity Passenger Rail

Intercity passenger rail service offers travelers a convenient way to move between major metropolitan areas. Intercity rail is another viable alternative to travel between cities by automobile, bus, or airplane.

Existing Services

In the LOSSAN North corridor, two intercity rail services exist, both operated by Amtrak. They are the Pacific Surfliner and the Coast Starlight. The following paragraphs provide descriptions and information on each service.

Amtrak Pacific Surfliner

Amtrak California's (a partnership of Amtrak and the State of California) Pacific Surfliner service runs between San Diego and San Luis Obispo, and provides connectivity between the most populous counties in California. The Pacific Surfliner is California's most developed rail service in terms of service levels and passenger ridership, and is second in ridership only to Amtrak's Northeast Corridor service.

Equipment Used

The Pacific Surfliner operates with some of the newest, state-of-the-art rail equipment in America – its locomotives are F59PHI "California" locomotives, manufactured by General Motors, which operate the cleanest-burning diesel engines available, and are streamlined to reduce wind resistance.

Pacific Surfliner coaches are an Amtrak variation of the bi-level California Cars developed for use on the other two Department-sponsored intercity rail routes (the Capitol Corridor and the San Joaquins).

A typical regular Surfliner train consists of six rail vehicles: the locomotive, a Business Class car, a Café car, two Coach-Class cars, and a Cab Car from which the engineer can operate the locomotive. During holidays or other peak periods of service, an additional passenger car is added (for a total of seven rail vehicles).

Selected Pacific Surfliner Trains (798 and 799) operate with refurbished single-level "Horizon-class" coaches, pulled by twin General Electric P40 Genesis Locomotives.

The trains operate in a "Push/Pull" mode. Northbound trains have the locomotive in the lead position ("Pull") mode. On southbound trains, the engineer operates the train from the Cab Car, which is the leading car – the locomotive in this instance becomes the rear-most car ("Push" mode). Trains 798 and 799 have a locomotive at each end of the train, and therefore do not operate in Push/Pull mode.

Operational Levels

The Pacific Surfliner runs 365 days a year, with five roundtrips between Los Angeles and Santa Barbara, two of which also serve San Luis Obispo.

Planned Operational Levels

The Amtrak-sponsored 20-Year Plan (2001) identifies an increase in Pacific Surfliner service over the long-term (between 2010 and 2020) to seven daily roundtrips between Los Angeles and Santa Barbara, with a third roundtrip serving San Luis Obispo.

Ridership (Current and Projected)

Current Pacific Surfliner ridership (for the entire corridor between San Diego and San Luis Obispo) was over 2.34 million passengers in Fiscal Year 2004 (October 2003 through September 2004). Annual ridership is projected to grow to 5.76 million passengers by 2020, associated with service level increases and trip time reductions.

Amtrak Coast Starlight

Amtrak's Coast Starlight Intercity Passenger Rail service is one of Amtrak's most popular rail services. It provides connectivity between Los Angeles, the San Francisco Bay Area, Portland, Oregon and Seattle, Washington.

For part of its route, it provides additional rail service between Los Angeles, Santa Barbara, and San Luis Obispo beyond that provided by the Pacific Surfliner, with a morning northbound service and an afternoon/evening southbound service.

As a longer-distance train, the Coast Starlight serves fewer Amtrak stations within the LOSSAN North corridor compared to the Pacific Surfliner service. Coast Starlight station stops include:

- Los Angeles Union Station (LAUS)
- Van Nuys
- Simi Valley
- Oxnard
- Santa Barbara, and
- San Luis Obispo

Equipment Used

A typical Coast Starlight trainset consists of five Amtrak Superliner bi-level coaches, four sleepers, as well as a dining car, Pacific Parlour car, Sightseer Lounge car, and a baggage car. The Coast Starlight is powered by two Genesis P40 (or P42) locomotives.

Operational Levels

The Coast Starlight service consists of two daily trains. The northbound departure (Train 11) leaves Los Angeles at 10:15 a.m., reaching Santa Barbara at 12:48 p.m., and San Luis Obispo by 3:43 p.m. The southbound departure (Train 14) leaves Seattle, Washington at 10:00 a.m., arriving at San Luis Obispo the next afternoon at 3:20 p.m., Santa Barbara at 6:17 p.m., and Los Angeles at 9:00 p.m.

Commuter Rail Service

Commuter rail service in the LOSSAN North corridor is provided by the Southern California Regional Rail Authority (SCRRA), also known as Metrolink. The following section provides information on Metrolink service.

Existing Service - Metrolink

The Southern California Regional Rail Authority, founded in 1991, provides Metrolink commuter rail service in five Southern California counties: Los Angeles, Ventura, San Bernardino, Riverside, and Orange. Metrolink's Ventura County line operates on the LOSSAN North Corridor, with service between Los Angeles Union Station and Montalvo Station in Ventura County.

Equipment Used

Similar to Amtrak's Pacific Surfliner service, Metrolink operates F59PH and F59PHI "California" locomotives, manufactured by General Motors. Passenger cars are tri-level coaches manufactured by Bombardier.

Like intercity passenger rail trains on the LOSSAN North corridor, Metrolink trains operate in Push/Pull mode, depending on the direction of travel.

A typical Metrolink train on the Ventura County line consists of either a four-car or three-car consist. Metrolink trains providing service to Burbank/Burbank Airport range from two-car to six-car consists. Limited service for all trains is provided on holidays.

Operator

Amtrak crews currently operate Metrolink service, under contract to SCRRA. Effective July 1, 2005, the service will be provided by Connex Railroad LLC.

Operational Levels

The Ventura County line currently operates nine trains in each direction, Monday through Friday.

Planned Operational Levels

Metrolink is in the process of developing a Strategic Assessment for its future development. As part of that effort, it plans to provide a doubling of service on the Ventura County line, to eighteen trains in each direction, Monday through Friday.

Future Services

Two additional rail services are either planned for implementation or under study that would run on the LOSSAN North corridor. They include Amtrak's Coast Daylight intercity passenger rail service, and a Ventura-Santa Barbara intercounty commuter rail service.

Amtrak Coast Daylight

Amtrak's Coast Daylight would provide intercity passenger rail service between downtown Los Angeles, and downtown San Francisco (the Coast Starlight serves Oakland), with additional stops in Santa Barbara, San Luis Obispo, Salinas (with a possible extension to Monterey), and other intermediate destinations.

LOSSAN North corridor stations served by the Coast Daylight would include:

- Los Angeles
- Glendale
- Van Nuys
- Chatsworth
- Simi Valley
- Oxnard
- Ventura
- Santa Barbara
- Guadalupe
- Grover Beach, and

- San Luis Obispo

Equipment Options

The Coast Daylight service could be operated with a number of different types of equipment.

The Coast Daylight service could utilize either the bi-level coaches used for the Pacific Surfliner service, or refurbished single-level Horizon equipment such as is being used on for the newest Pacific Surfliner roundtrip between Los Angeles and San Luis Obispo. Advantages of using the Pacific Surfliner equipment would include the benefits of having a common fleet, which would provide for better utilization and ease of maintenance.

Depending on funding availability, other equipment options such as the Talgo equipment using "tilt-train" technology, might be considered. While the use of this technology presents the opportunity to operate at higher speeds through curved territory, it also comes with its own issues that must be addressed. The equipment would require special maintenance to handle the new technology, and may not fit in the layout of existing maintenance facilities. The equipment is not interchangeable with the existing equipment; therefore a separate fleet of trainsets, with spares, must be maintained.

Planned Operational Levels

The Coast Daylight service would initially consist of two trains per day (with a morning northbound departure from Los Angeles and an evening southbound departure from San Francisco).

Ventura-Santa Barbara Intercounty Commuter Rail

As part of SBCAG's 101 In Motion study, commuter rail is being considered as one means to reduce traffic congestion on the crowded 101 Freeway. Such a commuter rail service would likely run between Oxnard and Goleta, and provide a connection between employment centers in Santa Barbara County and bedroom communities in Ventura County.

Preliminary information provided by the 101 In Motion study calls for two trains daily in each direction (one morning and one afternoon/evening). The stations to be served by this proposed commuter rail service have yet to be determined, but would include stops at all existing rail stations between Oxnard and Goleta.

Should commuter rail be advanced as an option through the 101 in Motion study, there remain a number of other issues to be addressed, such as whether such a service would be inaugurated through an expansion of the Metrolink system (such a request is not under consideration at this time, and a request would have to be made by a Metrolink member agency), or through the creation of a stand-alone commuter rail operation, such as San Diego County's Coaster service, operated by the North San Diego County Transit Development Board (better known as North County Transit District or NCTD).

The Department has made a commitment to the City of Santa Barbara to provide technical assistance in exploring the issues associated with the introduction of a commuter rail service. An initial analysis will be added to the next iteration of the Strategic Plan, as it is developed.

Freight Service

Freight service on the LOSSAN North Corridor is generally provided by the Union Pacific Railroad, though there is a small short-line railroad that carries some local service.

Union Pacific

The Union Pacific Railroad Company (UP) is America's largest freight operator. UP provides rail linkages between California, Canada, and Mexico, serves all California and West Coast ports, and provides four major linkages between the western United States and the rest of the country.

Coast Route

As part of its purchase of the Southern Pacific Railroad Company in 1996, UP acquired the Coast route, between San Francisco, San Jose, Salinas and Southern California. The LOSSAN North rail corridor is a portion of the UP's Coast Route.

While the UP's primary California rail route runs through the Central Valley, the Coast route serves markets along the coast, and acts as a secondary route, providing "surge capacity" between the LA Basin and points north to the San Francisco Bay area, northern California and the Pacific Northwest.

Whenever UP experiences a line outage on its Fresno Subdivision through the Central Valley, the Coast Subdivision provides a readily available alternative route. Likewise, when other UP routes that service the Basin are operating at capacity due to increased freight traffic volumes or freight traffic growth, this line is available.

Local Short-Line Railroads

The Ventura County Railway (VCRR) operates between the cities of Port Hueneme and Oxnard in western Ventura County. The line is currently used for freight service only, and is operated by the Rail America Corporation from the Port of Hueneme. As the Port of Hueneme is the only deep-water port between San Pedro and Oakland, there is potential for adding additional freight trips as shipping activity increases. This potential is greatly enhanced by plans to restore the Santa Paula Branch Line (which runs from eastern Ventura to Santa Clarita) and operate trains to connect with tracks in the Antelope Valley.

The Santa Maria Valley Railroad Company (SMVRC) is a local short-line railroad which operates between Guadalupe and Santa Maria. The SMVRC carries asphalt, petroleum products, scrap iron, gypsum wallboard, fertilizer, machinery, plastic, lumber and fresh and frozen food products.

Current Operational Levels

The Union Pacific estimates that an average of 8-12 freight trains operate on the LOSSAN North Corridor each day.

Potential Future Operational Levels

The growth in goods imported to the United States from overseas (largely Asia) has been tremendous. According to the Federal Highway Administration, the Ports of Los Angeles and Long Beach are the nation's first and fifth busiest ports, respectively[3]. The bulk of goods are shipped in containers, which are carried by train to centralized locations, and delivered by truck to their ultimate destinations.

By 2025, it is possible that the number of freight trains operating on the LOSSAN North corridor could increase to an average of 12-18 per day. This would depend on business conditions, and is a figure provided for planning purposes only.

Impacts of increased Rail Traffic on the LOSSAN North Corridor

The impacts of increased rail traffic on the LOSSAN North corridor are many. Without improvements to increase capacity (such as the projects under study in this Strategic Plan), there is a limit to the number of trains per day that can run on the existing single-track rail corridor. A rise in rail traffic volumes would impact reliability and on-time performance for all trains (intercity and commuter passenger rail, and freight), and increase trip times due to delays. Ultimately capacity issues would preclude the expanded train volumes to meet demand and improve passenger rail service.

UP will likely not enter into any additional operations that will negatively affect the existing capacity and functionality of the UP-owned portion of the line without significant improvements necessary in order for the railroad to consider accommodating additional passenger service. Other issues would need to be discussed and resolved with UP, and include:

- Line access fees
- Maintenance and operating expenses
- Liability protection and Insurance

Current and Forecast Train Volumes

As shown in Table 4-1, over the next twenty years planned service level changes and increased demand for freight goods movement could increase the forecast number of daily trains (all kinds of service) from the existing 38-42 daily trains to 70-76 daily trains – as much as an eighty percent increase. Providing sufficient additional rail capacity, as well as projects to improve reliability and reduce travel time will be needed if such additional train volumes are to run effectively.

[3] http://ops.fhwa.dot.gov/freight/freight_analysis/nat_freight_stats/docs/04factsfigures/fig2_6.htm

Table 4-1
2005 Daily Train Volumes vs. 2025 Potential Daily Train Volumes

2005 Daily Train Volumes		2025 Potential Daily Train Volumes	
Amtrak – Pacific Surfliner	10	Amtrak – Pacific Surfliner	14
Amtrak – Coast Starlight	2	Amtrak – Coast Starlight	2
Amtrak – Coast Daylight	N/A	Amtrak – Coast Daylight[4]	2
Ventura – Santa Barbara Intercounty Commuter Rail	N/A	Ventura – Santa Barbara Intercounty Commuter Rail[5]	4
Metrolink Commuter Rail	18	Metrolink Commuter Rail	36
Union Pacific Freight Service	8-12	Union Pacific Freight Service	12-18
Total 2005 Daily Train Volume	**38-42**	Total 2025 Potential Daily Train Volume	**70-76**

[4] Planned – Amtrak would need to sponsor this new train, and is not currently reviewing any proposals for new service.
[5] Under study

Section 5: PURPOSE AND NEED FOR IMPROVEMENTS

This section provides the purpose and need for the rail improvement projects described in this Strategic Plan.

Purpose

The purpose of improvements to the LOSSAN North rail corridor is to help meet the current and projected demand for travel within and between metropolitan areas of Southern California and the Central Coast by:

- Improving rail capacity to meet demand for all types of rail services, including intercity, commuter, and freight/goods movement
- Developing the LOSSAN North rail corridor in order to provide faster, safer, and more reliable passenger rail service, and
- Making rail travel a more-viable transportation alternative

The Need for Improvements

Growth in Population and Employment

Growth in population and employment are important driving factors for the Strategic Plan. Over the next twenty years, California's population is projected to rise from approximately 35.3 million (California Department of Finance, March 2004) to over 44 million. Population along the LOSSAN North corridor has dramatically increased, especially in Ventura County. Growth in cities such as Simi Valley, Camarillo, Oxnard, and Santa Maria is fueled by a combination of the attractive lifestyles they offer, and the relative affordability of their housing compared with prices in other communities. Employment within the study area has also increased, but is concentrated in employment centers within the metropolitan Los Angeles area, as well as in Santa Barbara and San Luis Obispo. This imbalance in the jobs/housing equation has led to longer commutes and increased traffic congestion.

Growth in Travel Demand

Travel demand between cities in California is projected to grow by 35 percent over the next twenty years, from 155 million trips to 209 million trips annually.[6]

Capacity of the Intercity Transportation System

In the LOSSAN North corridor, the intercity transportation system largely consists of the 101 Freeway and the LOSSAN rail corridor. The existing capacity of the intercity transportation system is not sufficient to accommodate the increasing demand for travel. Airport service in the LOSSAN North corridor is limited – flights into the San Luis Obispo and Santa Barbara airports are limited and more expensive than flights into other Southern California airports. While highway widening is a consideration, efforts such as the 101 In Motion study are underway to determine how best to meet the capacity challenges that beset

[6] LOSSAN South Strategic Plan (October 2003)

traffic today, and which will only get worse over time. Lost time and productivity resulting from delays and congestion on the rail corridor and on the highways negatively impacts both California's economy and quality of life.

LOSSAN North Rail Corridor

While the 101 Freeway is three lanes in each direction in many places, the different rail services on the LOSSAN North corridor share a facility with limited passing sidings that is in largely (80%) single-tracked – 177 of 225 miles. This constrains the movement of trains: by necessity, only a single train at a time can be present on a particular stretch of track. Other trains are forced to wait at locations where a second, parallel track exists, such as at a station or at a rail siding. The number of such sidings on the LOSSAN North corridor is few, and they are widely spaced. Depending on allowed track speeds and the distance between sidings, trains can wait up to 20 minutes for the section of the track ahead of them to clear before continuing. Planned stops at sidings are incorporated into the schedule, but add to the total trip time, making rail a less attractive travel option.

Travel Time

The scheduled running time between Los Angeles and Santa Barbara is two hours 40 minutes[7], with an additional two hours and 47 minutes running time between Santa Barbara and San Luis Obispo. Total travel time (the time spent on the road or on a train, from the place of origin to the final destination) is an important determinant of trip mode. Reducing the number and duration of delays, such as at sidings, as mentioned above, would have a significant positive impact on travel time.

Reliability

Reliability refers to the ability for trains to run on time. Having large sections of single-track and limited opportunities for trains to safely pass each other (at stations or at sidings) has an impact on reliability. This is compounded by the outdated track and signal conditions in many areas of the LOSSAN North corridor, which also affect reliability. Trains are scheduled to arrive at sidings or stations at a particular time (called a "meet"). Given the volume of trains on the corridor, a delay in trains arriving at their scheduled "meets" has a ripple effect on other trains between San Luis Obispo and Los Angeles. Providing additional sidings can increase reliability and reduce delays.

Maintaining on-time performance is critical in attracting and maintaining ridership on the Pacific Surfliner service. The on-time performance goal for the Pacific Surfliner Corridor is 85%. Trains met or exceeded this goal in seven months of 2004.

Cost-Effectiveness

The Pacific Surfliner is one of three intercity passenger rail services supported by the State of California through the Department's Division of Rail. Making improvements to the LOSSAN North corridor that increase capacity, reduce

[7] Pacific Surfliner Route FFY 2004-05 Business Plan

travel time, and improve reliability help the Department maximize the funds it spends to support rail services, and allow funds to be spent on other improvements or on additional service. The improvements are additionally cost-effective, because their benefits accrue not just for intercity rail service, but extend to commuter rail and freight service as well.

Safety

Nationally, passenger rail travel is one of the safest modes of transportation. However, continually improving safety is always an important consideration in the improvement of the LOSSAN North rail corridor. Projects that improve safety include track and signal upgrades, and grade separations which eliminate at-grade crossings between rail lines and roadways.

Other Considerations

A number of other considerations are also important factors behind the LOSSAN North Strategic Plan. They include:

- Increasing Modal Connections
- Protecting Air Quality and Environmental Resources
- Identifying Community Concerns

Increasing the modal connections between the rail service and passengers' points of origin (such as home or work) and their final destination makes rail a more attractive travel option. There are additional opportunities to increase coordination and planning between the rail service providers, local transit operators, and regional agencies, and the Strategic Planning process can provide a starting point for such coordination.

As the LOSSAN North rail corridor is enhanced and improved, projects can have benefits to air quality and the environment, as well as to rail performance. Projects that reduce delays (such new or extended sidings or grade separations, for example) can provide benefits to air quality by reducing emissions from idling trains and/or automobiles and trucks.

As rail corridor improvement projects are developed for the LOSSAN North corridor, the planning process will allow ample opportunities to identify community concerns. The public meetings held during the development of the Strategic Plan provided the first set of opportunities for community concerns to be identified. Possible mitigation strategies would be developed as part of an individual project's environmental clearance process.

The highway system, rail system, and commercial airports serving the intercity travel market are currently operating at or near capacity and will require large public investments for maintenance and expansion in order to meet existing demand and future growth. Without improvements to the LOSSAN North rail corridor, as travel demand increases there will be negative impacts to the economy and quality of life given a transportation system that is less reliable, and deteriorating air quality in and around our metropolitan areas.

The overall goal of the LOSSAN North Strategic Plan is to improve mobility in this congested part of the state by improving the rail system in a cost-effective manner. The rail corridor improvement projects under study would provide a vastly improved mode of train travel, linking the major metropolitan areas of Los Angeles, Ventura, Santa Barbara, San Luis Obispo, and beyond; provide opportunities for better interface with mass transit; and provide added capacity to help meet increases in travel demand in California in a manner sensitive to, and protective of California's unique natural resources.

Section 6: PUBLIC OUTREACH EFFORTS

The development of the Strategic Plan included a robust public outreach effort, including presentations and meetings with stakeholders, and a series of public information meetings held in cities throughout the LOSSAN North corridor. At each meeting, staff representing the Department, LOSSAN, the local transportation agency (VCTC, SBCAG, or SLOCOG), and the consultant were available to answer questions.

Stakeholder Meetings

PowerPoint presentations summarizing the goals, process, and schedule for the LOSSAN North Strategic Plan were made to stakeholders at meetings throughout the study area. The purpose of these presentations was to acquaint stakeholders with the project, and to solicit their input and comments regarding the study's scope and process. The dates and locations of stakeholder meetings held are provided in Appendix A.

Public Information Meetings

Four public information meetings were conducted over a three-day period. These public information meetings provided the public with an overview of the LOSSAN North corridor and the rail improvement projects under study, including information on the following:

- The Study Context – the purpose of the study and the need for improvements to the corridor
- Rail corridor facts
- Current and projected train volumes (of existing and proposed rail services)
- Types of rail improvement under consideration
- Proposed timeline for projects
- Projects by county – Los Angeles, Ventura, Santa Barbara, and San Luis Obispo
- The Planning Process / Next Steps

The dates and locations of public information meetings held are provided in Appendix A.

Comments Received

Comments gathered at the stakeholder and public information meetings were supportive of the strategic planning process, and the projects presented. Participants expressed the most interest in projects that improve reliability and those that provide additional information to passengers (such as electronic messaging boards and increased signage and literature in Spanish). There was significant interest at the Santa Barbara meeting about the potential for improvements that could be supportive of commuter rail.

Section 7: RAIL IMPROVEMENT PROJECTS

Many of the projects described in this plan were initially developed as part of the Amtrak-sponsored 20-Year Plan (2001). This section provides descriptions of the rail improvement projects studied, including the types of projects studied, the timeline for their potential construction/implementation, and their costs.

The rail improvement projects are described in this document from north to south and organized by county, beginning with projects in San Luis Obispo County and ending with projects at Los Angeles Union Station. Figure 7-1 shows the generalized locations of all the rail improvement projects.

Types of Rail Improvement Projects Studied

The individual rail improvement projects in this plan fall into six categories. Brief descriptions of each category are shown below:

Track and Signal Upgrades

Track Upgrades

The key to operating at maximum authorized speeds in mixed use (freight/passenger) territory is the condition of the infrastructure (rail, ties and sidings), track geometry, signal system and level of maintenance. Track conditions between LA and Santa Barbara are state of the art for a Class IV railroad, but as with any transportation system, improvements must be ongoing in order to keep up with expanding needs of a rapid growing population. Improvements such as additional and extended sidings, double tracking wherever possible, curve realignments and tunnel improvements are all necessary in order to maintain a first rate passenger rail service. In addition to infrastructure expansions, there is a constant need to replace rail and ties in order to maintain the system at maximum allowable train speeds.

Due to reduced train frequencies between Santa Barbara and San Luis Obispo, there has not been the same level of investment in the infrastructure (as compared to the territory between Los Angeles and Santa Barbara), leaving track and signal system conditions in a much lesser state. Much of the track is older, jointed rail, which requires a much greater level of maintenance to operate at maximum allowable speeds. The track geometry in much of this territory requires trains to operate at slower than maximum FRA allowable speed (79 mph) and siding length and condition makes train meets both difficult and time consuming at best.

Signal Upgrades

Like the track system, the signal system between Los Angeles and Santa Barbara is state of the art. The Centralized Traffic Control (CTC) is operated by a dispatcher who controls train movements from a remote location. North of Santa Barbara much of the signal system is Automatic Block System (ABS), requiring the dispatcher to communicate directly with each train crew before the train can obtain authority to proceed through "blocks" to their destination. Some locations, such as the Gaviota siding, have what is referred to as "island" CTC. This is when the switches, or control points, at a remote siding location are

controlled by the dispatcher, minimizing the investment of installing CTC throughout an entire territory. The use of Island CTC has been discussed with the Union Pacific Railroad for installation on the sidings between Gaviota and San Luis Obispo as part of an incremental upgrade.

Construction of Second /Third Main Tracks

Providing additional mainline tracks in areas of heavy rail traffic is akin to providing more travel lanes on a roadway, and would allow trains to travel at full speed. The benefits of additional main tracks are increased train frequencies, improved operational reliability, increased capacity, and decreased train delays.

Sidings and Siding Extensions

A siding is a short section of track adjacent to a main track, used for meeting or passing trains. Providing new sidings, and extending and upgrading some existing sidings where possible would provide additional capacity, reduced trip times, and improve operational reliability for both passenger and freight traffic.

Siding spacing between Gaviota and San Luis Obispo averages 7.5 miles, among the best in the system. However, every siding between these two locations operates at 10 miles per hour and requires train crews to manually throw the switch at either end. Incremental siding upgrades are a critical element to meeting the needs of the Pacific Surfliner service in the North.

Siding length is another critical factor in mixed-use territory. As economics dictate freight train lengths be continuously extended, passenger trains are more often forced into the siding when there is a meet simply because the freight trains will not fit. Where siding lengths of 5,000' were sufficient in the past, standard sidings of 10,000' should be extended or constructed wherever possible.

Curve Realignments

Modern train equipment cannot negotiate the tighter curves found in older sections of rail at the rated track speed, requiring them to slow down in order to move through them. Curve realignments straighten and reduce track curvature to provide a more gentle turn. This infrastructure improvement allows for reduced trip times by increasing train speeds on the curves. Straightening the train alignment would also prolong the life of the rail, reducing the frequency of track repairs or maintenance.

The Amtrak-sponsored 20 year plan looked at reducing the track curvature through the purchase of right-of-way and realignment of curves throughout the corridor. Mixed passenger and freight use makes it difficult to maintain curves due to the difference in operational speeds. Freight trains move slower through the curves, whereby the superelevation forces more wear onto the lower rail. The lighter passenger trains can operate faster through the curves, but this requires that the track geometry be set up differently. Maintaining the balance between passenger and freight use is never more difficult than when dealing with curves. While right of way costs are significant, anytime curvature can be reduced both freight and passenger speeds can be increased and maintenance is reduced.

Grade Separations

At-grade crossings are locations at which a rail line and a roadway intersect. Grade separation is the elimination of this intersection. Because cars and trucks are less sensitive to grades, typically a grade separation eliminates an intersection between a rail way and a road way, by putting the roadway underneath the rail line. Grade separations increase safety and benefit train performance, as well as reduce trip times. Grade separations also provide community benefits, such as reducing noise (through the opportunity to reduce sounding the train's horn), and improve local traffic flow by reducing vehicular delays at crossings.

Station Improvements

Station improvements include providing additional parking, new or improved station platforms, improved transit connectivity, new electronic signage to provide up-to-date arrival and departure information, and automated ticket vending machines to reduce ticketing times at busy stations, provide for off-hours ticketing, and allow ticketing at unstaffed stations. Benefits of station improvements include improved customer information, operational reliability, and increased capacity and customer service.

Projects by Timeline Category

The timeline for the projects identified in this plan are prioritized into three phases:

- Immediate – Projects in this category would be completed within 0 to 3 years
- Near-term – Projects in this category would be completed within 4 to 8 years
- Vision – Projects in this category would be completed within 9 to 20 years

The proposed timeline category for each project assumes that funding for the projects would be available and programmed, and that each project had obtained all necessary environmental clearances and permits.

Recommended Changes to Rail Improvement Projects

One of the objectives of the Strategic Plan was to revise and update previously identified projects for the improvement of the corridor. Based on input from the agencies participating in the development of the Strategic Plan, as well as from feedback gathered at the public outreach meetings, advancing projects that would improve reliability and improve customer information on train arrivals and potential delays were stressed. The timeline for some projects (noted in their descriptions) have been changed as a result of this input.

Costs

The project costs shown in this section for represent a 60% escalation over their 2001 costs as presented in the Amtrak-sponsored 20-Year Improvement Plan. Since 2001, there have been dramatic increases in the costs of concrete and

steel worldwide (up 3.7% and 16.5% in the last year alone, respectively), and based on construction cost indexes from the Engineering News Record, a widely-respected engineering magazine, this factor is an appropriate increase for planning purposes. A more detailed cost assessment would take place during project development.

Tables 7-1 through 7--3 identify the projects by their proposed Timeline categories: Immediate, Near-term, and Vision:

Table 7-1
Immediate Projects (0-3 years)

Project Number	Project Name	Current Timeline	Estimated Project Cost
SB-02	Waldorf Siding Extension	Immediate	$15M
SB-04	Tangair Siding Extension	Immediate	$22M
SB-06	Goleta Station Improvements	Immediate	$700K
SB-07	Santa Barbara Station Improvements	Immediate	$522K
SB-08	Ortega Siding	Immediate	$18M
SB-11	Seacliff Siding North	Immediate	$18M
V-04	Camarillo Station Improvements	Immediate	$7M
V-05	Moorpark to Simi Valley Rail Replacement	Immediate	$24M
V-07	CP Posas to MP 423 Second Main Track	Immediate	$45M
V-08	Simi Valley to CP Strathearn Second Main Track	Immediate	$37M
V-10	Simi Valley Station Improvements	Immediate	$6M
V-13	Santa Susan Tunnel 26 Seismic Upgrade	Immediate	$13M
LA-02	Los Angeles to Burbank Third Main Track	Immediate	$165M
LA-04	Burbank Junction Track Realignment	Immediate	$8.5M
LA-05	Union Station Run-Through Tracks	Immediate	$535M
Subtotal Costs for Immediate Projects			$914.722M

Table 7-2
Near-Term Projects (4-8 years)

Project Number	Project Name	Current Timeline	Estimated Project Cost
SB-09	Sandyland Siding	Near-Term	$18M
SB-10	Rincon Siding	Near-Term	$18M
SB-12	Seacliff Curves Realignments	Near-Term	$8.5M
V-01	Montalvo Curve Realignments	Near-Term	$1.1M
V-02	Santa Clara River Curve Realignment	Near-Term	$5M
V-03	CP West Camarillo Curve Realignments	Near-Term	$165M
V-06	Moorpark Station Improvements	Near-Term	$1M
V-09	Strathearn Siding Curve Realignment	Near-Term	$0.5M
LA-01	CP Raymer to CP DeSoto Second Main Track	Near-Term	$40M
LA-03	Burbank Siding Extension	Near-Term	$165M
Subtotal Costs for Near-Term Projects			$422.1M

Table 7-3
Vision Projects (9-20 years)

Project Number	Project Name	Current Timeline	Estimated Project Cost
SLO-3	Hadley – Calendar Curve Realignments	Vision	$145M
SB-01	MP 276 Track Realignment and Highway 1 Overpass Replacement	Vision	$42M
SB-03	Devon to Tangair Curve Realignments	Vision	$165M
SB-05	Santa Barbara County Curve Realignment Projects	Vision	$586M
V-11	Los Angeles Street Grade Separation	Vision	$75M
V-12	Hasson to Simi Valley Station Second Main Track	Vision	$33M
Subtotal Costs for Vision Projects			$1.046B
Total Costs for All Projects			$2.382B

San Luis Obispo County

Table 7-4
San Luis Obispo County Projects

Project Number	Project Name	Current Timeline	Estimated Project Cost
SLO-1	San Luis Obispo – Santa Barbara Signal Upgrades	Near-Term	$250M
SLO-2	San Luis Obispo – Santa Barbara Track and Signal Upgrades	Near-Term	$330M
SLO-3	Hadley – Calendar Curve Realignments	Vision	$145M

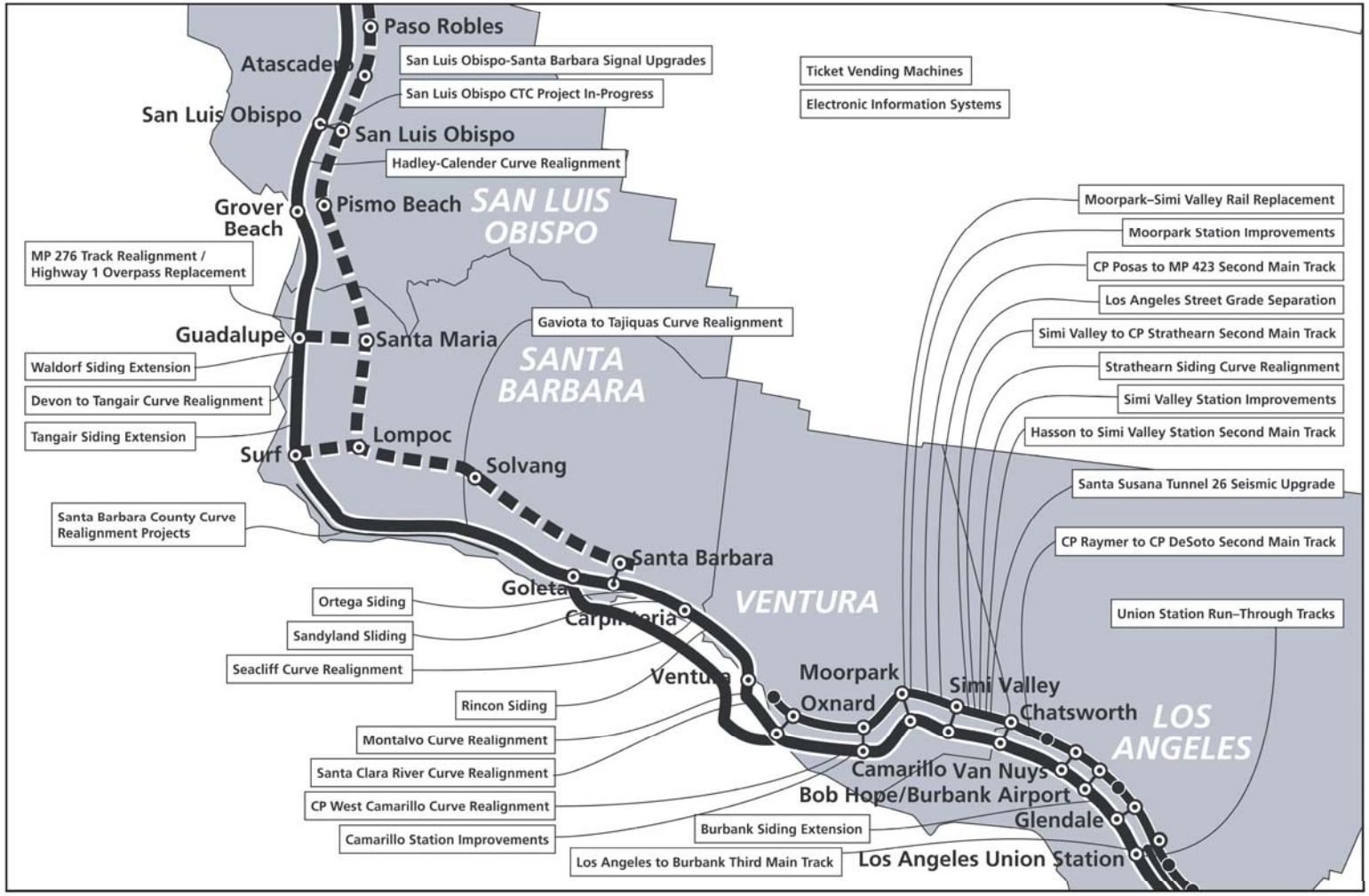
San Luis Obispo to Santa Barbara Signal Upgrades (SLO-01 – Near-Term): This is a joint project that would benefit both the Coast Corridor and the Pacific Surfliner Corridor. This project upgrades 147.00 miles of signal system between Gilroy and Santa Barbara, from Milepost (MP) 80.10 to MP 355.80.

The existing Centralized Traffic Control (Dispatcher control or CTC) signal system would be extended from MP 80.10, near Gilroy, to MP 113.04, near Salinas, by installing new CTC communications and upgrading the existing CTC signal system with solid-state electronics. Two new power-operated switches (No. 20 turnouts) and control points would be installed, and would replace antiquated hand-thrown switches currently in use.

The existing Automatic Block Signal (ABS) and CTC signal systems would be upgraded to a CTC signal system from MP 139.60, at Soledad, to MP 167.20, near San Lucas. Three new power-operated No. 20 turnouts and three control points would be installed.

The existing ABS and CTC signal system would also be upgraded to a CTC signal system from MP 192.74, at Bradley, to MP 278.76, near Waldorf. Five new power-operated No. 20 turnouts and five control points would be installed. When this project is completed, CTC would be in service continuously from Gilroy to Los Angeles. This project would improve operational reliability and increase rail capacity between Gilroy and Santa Barbara. The estimated cost for this project is $250M

Figure 7-1
Projects Under Study
LOSSAN North Corridor Strategic Plan



San Luis Obispo to Santa Barbara Track and Signal Upgrades (SLO-02 – Near-Term): This project would upgrade track and outdated signal systems on the 107.36 miles between San Luis Obispo and Santa Barbara, from MP 248.44 to MP 355.80, from FRA Class 3 to Class 4 track standards (it would allow maximum train speeds up to 79mph). This track upgrade would include new continuous welded rail (CWR) installation, spot timber tie replacement, ballasting (the rock bed beneath the tracks) and track surfacing and aligning.

An island CTC signal system would be installed from MP 278.76, near to Devon, to MP 320.73, at Concepcion. This project would upgrade the existing ABS signal system with CTC communications. Eleven new power-operated No. 20 turnouts and control points would be installed.

The existing CTC signal system would be extended from MP 320.73, at Concepcion, to MP 355.80, at Ellwood. This project would install 35.10 miles of new CTC signal system and upgrade 15.00 miles of the existing ABS signal system with CTC communications. Five new power-operated turnouts and control points would be installed. This project would improve operational reliability, reduce trip time and increase capacity between San Luis Obispo and Santa Barbara. The estimated cost for this project is $330M.

Hadley to Callender Curve Realignments (SLO-3 – Vision): This project, located 12 miles south of San Luis Obispo, reduces curvature at three locations between MP 255.10 and MP 265.5. Six of the existing 12 curves would be eliminated and the remaining six would be reduced to a three-degree maximum curvature. Three new concrete railroad trestles and a new highway overpass at Price Canyon Road would be constructed. This project would reduce trip times by allowing maximum train speeds to increase from 50 to 79mph at a cost of $145M.

Santa Barbara County

Table 7-5
Santa Barbara County Projects

Project Number	Project Name / Project Type	Current Timeline	Estimated Project Cost
SB-01	MP 276 Track Realignment and Highway 1 Overpass Replacement	Vision	$42M
SB-02	Waldorf Siding Extension	Immediate	$15M
SB-03	Devon to Tangair Curve Realignments	Vision	$165M
SB-04	Tangair Siding Extension	Immediate	$22M
SB-05	Santa Barbara County Curve Realignment Projects	Vision	$586M
SB-06	Goleta Station Improvements	Immediate	$700K
SB-07	Santa Barbara Station Improvements	Immediate	$522K
SB-08	Ortega Siding	Immediate	$18M
SB-09	Sandyland Siding	Near-Term	$18M
SB-10	Rincon Siding	Near-Term	$18M
SB-11	Seacliff Siding North	Immediate	$18M
SB-12	Seacliff Curves Realignments	Near-Term	$8.5M

MP 276 Track Realignment and Highway 1 Overpass Replacement (SB-01 – Vision): This track realignment project, located 4 miles south of Guadalupe, would relocate 1.80 miles of main track between MP 275.2 to 277 to reduce the curvature. Two existing curves would be reduced to two degrees maximum, allowing maximum train speeds to increase from 45 to 79 with the possibility of future speeds up to 90 mph. The cost of this project, $42M, also includes the replacement of the Highway 1 overpass at MP 276.13.

Waldorf Siding Extension (SB-02 – Immediate): This infrastructure improvement project, located 30 miles south of San Luis Obispo, would extend the current Waldorf siding one mile southward to MP 278.60, for a total siding length of 9,315'. New power operated number 20 turnouts would be installed at each end. This siding extension would be necessary to provide additional capacity and operational reliability for both passenger and freight traffic at an estimated cost of $15M. This project was advanced to Immediate from Near-Term. The current timetable calls for the southbound Pacific Surfliner, train #798, to pass the northbound Coast Starlight, train #14, in this vicinity. The hand-thrown switches cause significant delays and the upgrade to an island CTC signaling system is needed.

Devon to Tangair Curve Realignments (SB-03 – Vision): This major curve realignment project, located 48 miles south of San Luis Obispo, would relocate 12.10 miles of main line track between MP 279.80 to MP 296.80, to reduce track curvature. The project constructs 8.90 miles of new main track and 2.00 miles of retaining walls. The 24 existing curves would either be eliminated or reduced to three degrees maximum curvature. This infrastructure improvement project would reduce trip times by increasing the train speeds from 50-79 mph. The estimated cost for this project is $165M.

Tangair Siding Extension (SB-04 – Immediate): This project, located 44 miles south of San Luis Obispo, is an approximate .85 mile extension northward of the existing Tangair siding for a total siding length of 10,790'. A new power operated Number 20 turnout would be installed at each end of the siding and the curve at MP 293.5 would be reduced from five degrees to two degrees. This siding extension would provide additional capacity and operational reliability for both freight and passenger traffic at a cost of $22M, and could be constructed within the existing right-of-way, facilitating the permitting process for this project. This project was advanced to Immediate from Near-Term.

Santa Barbara County Curve Realignment Projects (SB-05 – Vision): When the railroad was built along the coast in the 19th century, railroad builders followed the contours of the land to minimize earthmoving and tunneling operations. This created many miles of curve along what is today the Pacific Surfliner Corridor. Straightening these curves would significantly reduce run times (trains can attain a higher speed) and would reduce maintenance costs (lessening the wear and maintenance required by tracks). For the purposes of the Strategic Plan, the individual projects below are combined as the Santa Barbara County Curve Realignment Projects. The estimated cost for all the individual projects summarized as SB-5 is $586M.

Surf to Arguello Curve Realignments (SB-05A): This project, 67 miles north of Santa Barbara, would relocate 6.30 miles of main line track between MP 297.90 to MP 311.40. The geometry of the existing 16 curves would either be eliminated or reduced to two degrees maximum, allowing train speeds to increase from 60 mph to 79 mph consistently.

Sudden to Concepcion Curve Realignments (SB-05B): This project would realign 3.50 miles of main line track between Sudden and Concepcion, 50 miles north of Santa Barbara, from MP 315.00 to MP 319.80, to reduce track curvature. This project would realign or eliminate 14 existing curves. The project would construct 3.50 miles of new main track and retaining walls. The curvature of six existing curves would be reduced to 1 degree, 30 minutes maximum and eight existing curves would be eliminated. A new 900-foot concrete trestle would be constructed over Jalama Creek. This infrastructure improvement project would reduce trip times by increasing train speeds from 60 to 90 mph.

Concepcion to Gato Curve Realignments (SB-05C): This project would realign 3.50 miles of main line track between MP 315.00 to MP 319.80. Of the 14 existing curves, eight would be eliminated and the remaining six would be reduced to 1 degree, 30 minutes maximum. Included in this project would be a new 900 foot concrete trestle at Jalama Creek. This infrastructure improvement project would increase train speeds from 60 to 79 mph.

San Augustine to Sacate Curve Realignments (SB-05D): This project, 35 miles north of Santa Barbara, would realign seven existing curves between MP 328.20 to MP 332.90 to a maximum of 1 degree, 30 minutes for a maximum speed increase from 65 to 79mph, with the possibility of operating at 90 mph.

Gaviota to Tajiguas Curve Realignments (SB-05E): This project, located 30 miles north of Santa Barbara, would realign four existing curves between MP 335.10 and 341.00 to a maximum 1 minute 30 degree curvature. The project would require construction of 1.50 miles of retaining wall and the re-construction of 1.76 miles of rail. This project would increase maximum train speeds from 75 mph to a possible 90 mph.

Tajiguas to Ellwood Curve Realignments (SB-05F): This major curve realignment project, located 13 miles north of Santa Barbara, would realign eleven curves, totaling 4.70 miles of main line track, between Tajiguas and Ellwood, from MP 341.40 to MP 354.40, to reduce track curvature. The project would construct 3.20 miles of new main track and 3.00 miles of retaining walls. The curvature of eight existing curves would be reduced to two degrees maximum. The infrastructure improvement project would reduce trip times by increasing maximum train speeds from 65 to 90 mph.

Goleta Station Improvements (SB-06 – Immediate): This project would create an enticing gateway for the Goleta station -- improving both the aesthetics and functionality of the station entrance with pedestrian facilities, bus access, enhanced paving, landscaping, signage, lighting, bicycle facilities, restrooms, etc. This project would provide for increased passenger capacity and operational reliability. The estimated cost for this project is $700K.

Santa Barbara Station Improvements (SB-07 – Immediate): This project would allow for the acquisition of a vintage rail car for historical display at the Santa Barbara Station complex. The depot's existing historic rail car spur will be remodeled, and the car installed on the track for permanent, static display. Additionally, the historic signalman's building will be renovated and remodeled into a museum and visitor's information center. The estimated cost of this project is $522K.

Ortega Siding (Proposed SB-08 – Immediate): The south end of Ortega siding has been removed and the remaining portion is now used as a stub track for maintenance equipment. This project would reconstruct the old siding and add an additional .5 miles to the south. Benefits of the project, estimated at $18M, would be increased capacity and operational efficiency for all trains operating north of Los Angeles. This project was advanced to Immediate from Near-Term. The siding could be constructed within the existing right-of-way, facilitating the permitting process. This project would also be needed to provide capacity for the Ventura-Santa Barbara intercounty commuter rail service under study.

Sandyland Siding (Proposed SB-09 – Near-Term): This siding was studied approximately 3 years ago. This siding would be constructed north of the existing Carpenteria Amtrak station, running between MP 376 and MP 377.8. It would involve widening two pre-stressed concrete box bridges (PCB), one 36', the other 65'. There are two road crossings within the siding and it is bordered by a salt marsh that is managed by the University of Santa Barbara. Much of the siding would be hidden in the cut from Hwy. 101, minimizing the visual impact. Benefits of this project would be increased capacity, reduced trip times, and improved operational reliability. The estimated cost for this project is $18M.

Rincon Siding (Proposed SB-10 – Near-Term): This proposed siding would be constructed to the south of the previously proposed Carpenteria siding. This siding would begin at approximately MP 380.3 and run south to 381.3. There appears to be sufficient clearance beneath the Hwy 101 overpass in addition to sufficient right of way. Much of the siding would be hidden in the cut so any visual impact would be minimized. This siding would be roughly one mile long. Benefits from this project are increased capacity, reduced trip time, and improved operational reliability. The estimated cost for this project is $18M.

Seacliff Siding North (Proposed SB-11 – Immediate): This project extends the existing Seacliff siding north from the switch at MP 385.2 through the curve at MP 383.8. The tracks through the center of the curve at MP 384.5 would be relocated approximately 150’ to the west, thereby minimizing the impacts of storm runoff, reducing curvature and increasing train speeds. This would become a 2.5 mile-long siding, having the capacity to hold freight trains so that passenger trains could pass. For this reason, it was advanced to Immediate from Near-Term. The estimated cost of this siding is $18M (not including the costs for right-of-way acquisition). This project would be needed in order to provide for the Ventura-Santa Barbara intercounty commuter rail service under study.

Seacliff Curves Realignments (SB-12 – Near-Term): This project is located 6.5 miles north of Ventura, between MP 387.50 and MP 381.70. An additional 8.64 acres of right-of-way would need to be acquired to reduce track curvature from five degrees to two degrees maximum. The estimated cost of this time savings project is $8.5M.

Ventura County

Table 7-6
Ventura County Projects

Project Number	Project Name / Project Type	Current Timeline	Estimated Project Cost
V-01	Montalvo Curve Realignments	Near-Term	$1.1M
V-02	Santa Clara River Curve Realignment	Near-Term	$5M
V-03	CP West Camarillo Curve Realignments	Near-Term	$165M
V-04	Camarillo Station Improvements	Immediate	$7M
V-05	Moorpark to Simi Valley Rail Replacement	Immediate	$24M
V-06	Moorpark Station Improvements	Near-Term	$1M
V-07	CP Posas to MP 423 Second Main Track	Immediate	$45M
V-08	Simi Valley to CP Strathearn Second Main Track	Immediate	$37M
V-09	Strathearn Siding Curve Realignment	Near-Term	$0.5M
V-10	Simi Valley Station Improvements	Immediate	$6M
V-11	Los Angeles Street Grade Separation	Vision	$75M
V-12	Hasson to Simi Valley Station Second Main Track	Vision	$33M
V-13	Santa Susan Tunnel 26 Seismic Upgrade	Immediate	$13M

Montalvo Curve Realignment (V-01 – Near-Term): This project would realign 1.00 mile of main line track at Montalvo, between MP 398.10 and MP 399.10. The Montalvo Curve is located five miles north of Oxnard Station. This realignment would reduce the maximum track curvature from three degrees to two degrees. This project would construct 0.29 mile of new track to FRA Class 5 standards for a maximum speed for passenger trains of 90mph. An additional 0.29-acre of right-of-way would be acquired. This infrastructure improvement reduces trip times by increasing train speeds on the curve. The estimated cost for this project is $1.1M.

Santa Clara River Curve Realignment (V-02 – Near-Term): This project, located two miles north of Oxnard Station, would realign approximately 0.40 mile of main line track east of the Santa Clara River, between MP 401.90 and MP 402.30, to reduce the maximum track curvature from three to two degrees. This project would construct 0.40 mile of new track to FRA Class 5 standards (allowing a maximum operating speed of 90mph). An additional 3.69 acres of right-of-way would be acquired. This infrastructure improvement would reduce trip times by increasing train speeds on the curve. The estimated cost for this project is $5M.

CP West Camarillo Curve Realignment (V-03 – Near-Term): This project, located seven miles south of Oxnard Station, would realign 0.50 mile of main line track at CP West Camarillo, between MP 411.50 and MP 412.00, to reduce the maximum track curvature from three degrees to two degrees. This project would construct 0.50 mile of new track to FRA Class 5 standards for a maximum speed for passenger trains of 90mph. An additional 3.38 acres of right-of-way would be acquired. This infrastructure improvement would reduce trip times by increasing train speeds on the curve. The estimated cost for this project is $5M.

Camarillo Station Improvements (V-04 – Immediate): The Camarillo Station is undergoing a significant expansion, and evolving as a transit center and major park-and-ride to serve California State University, Channel Islands. Improvements will include a pedestrian overcrossing, second track, expansion of transit bays, and construction of 250 additional parking spaces. This project will provide for increased passenger capacity and operational reliability. The estimated cost for this project is $7M.

Moorpark to Simi Valley Rail Replacement (V-05 – Immediate): This project would replace the existing track with continuously welded steel track and new concrete ties, providing increased capacity, reduced trip time, improved operational reliability, and increased safety. The estimated cost for this project is $24M.

Moorpark Station Improvements (V-06 – Near Term): Improvements to the Moorpark Station would provide landscaping, lighting and additional parking for increased passenger capacity and operational reliability. The estimated cost for this project is $1M.

CP Las Posas to MP 423 Second Main Track (V-07 – Immediate): This improvement project, located in Moorpark, would construct a second main track from CP Posas to MP 423, 3.50 miles long, from MP 423.00 to MP 426.50. This second main track would be constructed with 45-mph turnouts on each end. New signals would be installed on both tracks west of Moorpark Station. The benefits of this project are improved operational reliability and increased capacity. The estimated cost for this project is $45M. This project was advanced to Immediate from Near-Term.

Simi Valley to CP Strathearn Second Main Track (V-08 – Immediate): This project would construct a second main track from Simi Valley to CP Strathearn, 4.67 miles long, from MP 432.82 to MP 438.15. The track would be constructed to FRA Class 5 standards, allowing for a maximum speed for passenger trains of 90mph. A new crossover would be installed. Seven rail/highway grade crossings would also be upgraded. This project would also construct a second passenger platform at Simi Valley Station adjacent to the new second main track. The benefits of this project would be improved operational reliability and increased capacity. The estimated cost for this project is $37M. This project was advanced to Immediate from Near-Term.

Strathearn Siding Curve Realignment (V-09 – Near-Term): This project, which is located five miles south of Moorpark Station, would realign 0.40 mile of main line track and the Strathearn Siding track, between MP 431.70 and MP 432.10, to reduce the maximum track curvature from three to two degrees. This project would construct 0.40 mile of new track to FRA Class 5 Standards for a maximum speed for passenger trains of 90mph. This infrastructure improvement would reduce trip times by increasing train speeds on the curve. The estimated cost for this project is $0.5M.

Simi Valley Station Improvements (V-10 – Immediate): The Simi Valley Station Improvement project would provide for increased passenger capacity and operational reliability. The estimated cost for this project is $6M.

Los Angeles Street Grade Separation (V-11 – Vision): This project would grade-separate Los Angeles Street (MP 437.70) in Simi Valley. This project would also realign the 0.30-mile-long curve south of Los Angeles Street. A new Los Angeles Street overpass would be constructed. The track realignment would construct 0.48 mile of new track to FRA Class 5 standards for a maximum speed for passenger trains of 90mph. This project would reduce trip time and increase public safety. The estimated cost for this project is $75M.

Hasson to Simi Valley Station Second Main Track (V-12 – Vision): This improvement project, located adjacent to Simi Valley Station, would construct a second main track from Hasson northward to Simi Valley Station, 1.00 mile long, from MP 439.10 to MP 438.10. This second main track would be constructed to FRA Class 5 standards for a maximum speed for passenger trains of 90mph. The benefits of this project would be improved operational reliability and increased capacity. The estimated cost for this project is $33M.

Santa Susana Tunnel 26 Seismic Upgrade (V-13 – Immediate): This project will increase the strength and safety of the tunnel to withstand an earthquake by injecting concrete between the existing shell of the tunnel and the mountain through which it passes. The benefits of this project are increased operational reliability and improved safety. The estimate cost for this project is $10M. Construction of this project is scheduled to begin in Summer 2005.

Additional Suggested Ventura County Projects

In addition to the Ventura County projects described above, during the public information meetings the City of Oxnard identified four crossings within the city for consideration as future crossing safety improvement projects. The four crossings are located at:

- South Rice Avenue and East Fifth Street
- South Rose Avenue and East Fifth Street
- East Vineyard Avenue (State Route 232) near St. Mary's Drive
- North Oxnard Boulevard (State Route 1) and Gonzales Road

Los Angeles County

Table 7-7
Los Angeles County Projects

Project Number	Project Name / Project Type	Current Timeline	Estimated Project Cost
LA-01	CP Raymer to CP DeSoto Second Main Track	Near-Term	$40M
LA-02	Los Angeles to Burbank Third Main Track	Immediate	$165M
LA-03	Burbank Siding Extension	Near-Term	$165M
LA-04	Burbank Junction Track Realignment	Immediate	$8.5M
LA-05	Union Station Run-Through Tracks	Immediate	$535M

CP Raymer to CP De Soto Second Main Track (LA-01 – Near Term): This improvement project, located in Northridge, would construct a second main track from CP Raymer to CP De Soto, 6.50 miles long, from MP 446.60 to MP 453.10. This second main track would be constructed to FRA Class 5 standards. A new concrete bridge would also be constructed. The benefits of this project are improved operational reliability and increased capacity. The estimated cost for this project is $40M.

Los Angeles to Burbank Third Main Track (LA-02 – Immediate): This project would add an 8.40 mile-long third track between the east bank of the Los Angeles River and Burbank from MP 3.00 and MP 11.40. This area presents operating conflicts for both passenger and freight trains. Located along this segment of Metrolink's Valley Subdivision is SCRRA's Taylor Yard maintenance and storage facility, and UP's Taylor Yard, their prime locomotive maintenance facility in the Los Angeles River basin. Train movements into and out of these facilities, combined with freight and local trains to Burbank and points north on UP's Coast Line, as well as freights using Metrolink's Antelope Valley line for points north of Palmdale, strain the capacity of a two-track railroad. This project would also realign the crossovers at the CP Metro, between MP 3.00 and MP 3.50 (the entrance to the Metrolink facility), to allow construction of the third track. This track would be constructed to FRA Class 5 standards for a maximum speed for passenger trains of 90mph. The benefits of this project would be improved operational reliability and increased capacity. The estimated cost for this project is $165M.

Burbank Siding Extension (LA-03 – Near-Term): This project would be an approximate 0.70-mile extension of the existing Burbank Siding in Burbank northward to CP Lockheed, from Mp 461.50 to MP 460.80. This track would be constructed to FRA Class 5 standards. The existing turnout at MP 461.50 would be removed. A new No. 20 turnout would be installed at MP 460.80. A new CTC signal system would also be installed for the siding extension. This siding extension, which is required to clear freight trains, would provide additional capacity and operational reliability for both freight and passenger traffic. The estimated cost for this project is $8.5M.

Burbank Junction Track Realignment (LA-04 - Immediate): Burbank Junction is the merge point between Metrolink's Antelope Valley line and its Ventura Subdivision, which is also used by long-distance trains and the Pacific Surfliner. Through this busy junction, the primary route over Metrolink's Ventura Subdivision diverges though low-speed turnouts to a reduced-speed curve to the west, while Antelope Valley trains continue on a straight line through the junction. The installation of new high-speed switches and a modest amount of track realignment on the curve would permit an upgrade of the track and subsequent higher track speeds (up to 90mph) through the junction. This project would decrease travel time. The estimated cost for this project is $8.5M.

Union Station Run-Through Tracks (LA-05 - Immediate): Today's LAUS serves far more passenger trains that at any point in its 70-plus years of existence. It also serves a more varied mix of trains, including Pacific Surfliner Corridor trains, Amtrak long-distance trains and commuter trains moving north, south and east of the station. When the terminal was constructed in the late 1930's, its primary function was to accommodate long-distance passenger trains. These trains required long loading times and time-consuming servicing within the station to support amenities such as baggage, mail and sleeping car/dining car operations. Today's trains load much more quickly, and providing run-through tracks would allow for a more rapid turn-around for them, as trains traveling from San Diego to San Luis Obispo, for example, would not need to back out of or into Union Station. This project would provide increased capacity, reduce trip times, provide additional operational reliability, and improve safety. The estimated cost for this project is $400M.

Corridor-Wide Improvements

Electronic messaging boards and ticket vending machines are two additional improvement projects currently being implemented. The two corridor-wide projects will improve customer service.

Electronic Messaging Boards

Electronic messaging boards provide information on arrival/departure times, alert passengers to approaching trains, and provide news and updates. Electronic messaging boards could be located both inside stations and on the platforms.

Messaging boards are currently located at Metrolink stations throughout the LOSSAN North Corridor. The Department has set aside $1.9 million to install messaging boards at all Pacific Surfliner stations from San Luis Obispo to San Diego. Efforts are underway to explore what will be required to jointly display both Metrolink and Amtrak information on the boards already found at Metrolink stations.

Electronic Ticket Vending Machines

At staffed stations, TVMs could supplement station agents or reduce lines at ticket counters, freeing the agents to concentrate on more-complex ticketing issues, and increase customer service and passenger satisfaction. TVMs are even more essential at non-staffed stations because they allow customers to purchase their tickets at the platform while waiting for the train, rather than once

they board the train from a conductor or in advance through a travel agent or online. The ease with which one could purchase a rail ticket through a TVM could also influence travel mode choice, increasing ridership.

The Department has encumbered $13.9 million for TVMs and associated software to be installed at stations throughout the entire LOSSAN corridor. Currently in the LOSSAN North corridor, TVMs are available only at Metrolink stations, and vend Metrolink commuter rail tickets only. Efforts are underway to upgrade the hardware and software of these TVMs so that it will be possible to vend both Metrolink and Amtrak tickets.

Feedback from the public meetings reaffirmed that the ongoing work on these projects is seen as important in making it easier for customers to be informed of train arrivals and delays, and to facilitate the purchasing tickets at the station (instead of in advance or on the train).

Other Needs

Capital Funding for Additional Pacific Surfliner Trainsets

The Pacific Surfliner fleet consists of ten trainsets (eight of which were purchased by Amtrak, and two by the State of California). Each trainset includes one locomotive, one Pacific Business Class/Baggage Car, one Café Car, two Coach Cars, and a Coach/Cab Car. There are additional spare locomotives.

Currently, there are not enough Pacific Surfliner trainsets to operate the existing level of service. An additional Amtrak-owned trainset composed of refurbished Horizon-class cars (with Amtrak P40 Genesis locomotives, rather than the F59PHI's in standard Surfliner use) provides for the second daily roundtrip between Los Angeles and San Luis Obispo.

Typically, there is one "spare" trainset for every ten in service. This allows for scheduled maintenance or for replacement of a train that is damaged or requires non-scheduled maintenance.

Especially during the peak summer travel months, all available train cars are in service. This does not provide opportunities for adequate scheduled maintenance as well as thorough cleaning and refurbishment. The result can be delays and/or train breakdowns. This has a ripple effect on the schedule, reduces on-time performance, and negatively impacts both customer satisfaction and ridership.

The funds for the current fleet of Surfliner trains came as a result of the passage of Proposition 116, the Clean Air and Transportation Improvement Act, which provided $1.99 billion for various rail and transit projects. This amount included $382 million for the acquisition of new rolling stock and locomotives (which included the Surfliner purchase)[8].

[8] http://www.midwesthsr.org/news_library_cal.htm

In order to provide increased reliability at the existing level of service, new state and/or federal funding needs to be provided that can be used to purchase additional Pacific Surfliner trainsets. The 2025 goal is to provide seven daily roundtrips between Los Angeles and Santa Barbara, with three daily roundtrips between Los Angeles and San Luis Obispo.

Capital Funding for new Coast Daylight Trainsets

The Coast Daylight service will also require new trainsets (whether additional bi-level Pacific Surfliner-class or single-level tilt-train type remains to be determined). Additional state and/or federal funding needs to be allocated for such purposes. The Coast Daylight Implementation Plan identifies a need for two trainsets in order to provide initial service.

Section 8: THE PLANNING PROCESS / NEXT STEPS

The objectives of the LOSSAN North Strategic Plan, as stated previously, include the following:

- Fostering better communication and understanding among stakeholders (owners and operators of the rail corridor, governmental agencies, elected representatives, and the public) about prioritization of needs, projects and timelines for the corridor.
- Developing a strategic plan for the northern segment of the LOSSAN corridor between Los Angeles and San Luis Obispo that complements the LOSSAN South plan.
- Developing an expanded corridor-wide summary document, which integrates the major findings from both the LOSSAN South and LOSSAN North documents.
- Drafting an overall timeline and schedule for future projects.

The Strategic Plan provides a complete overview of the LOSSAN North rail corridor and a description of the rail services that operate on it, yielding the magnitude of the need for improvements in order to support the levels of rail services planned and proposed. This document lays out the reasons why corridor improvements are needed, and the resulting benefits.

The timelines for projects as detailed in previous planning documents, including the Amtrak-sponsored 20-Year Improvement Plan and the California State Rail Plan have been revised and presented to the public and to stakeholders as part of the public outreach effort.

Comments received as a result of the outreach effort as well as from participating agencies stressed prioritization of those projects that will improve the reliability of rail service and those that provide better information for passengers. The timeline for these types of projects have been updated to reflect this feedback. As well, project priorities in Ventura and Santa Barbara County have been updated to recognize the need for increased rail capacity in those counties, not only to support expanded Amtrak and freight rail services but also to allow for a possible new Ventura-Santa Barbara inter-county commuter rail service.

The LOSSAN North Strategic Plan represents just one phase of the Department's continuing study of improvements to the rail corridor and the intercity passenger rail services it supports. This document is meant to help advance the rail improvement projects from the conceptual and planning stages to the next phase of obtaining funding and gaining the appropriate environmental clearances necessary for construction and implementation.

There are a number of institutional issues that will need to be addressed to pursue recommended projects. These include:

- Securing funding sources
- Programming projects
- Identifying lead agencies for projects
- Completing the environmental review process
- Resolving permitting Issues, and
- Identifying potential Amtrak-related Issues

Securing Funding Sources

A number of sources are available to provide operating and capital funds for rail services. These come primarily from the State of California, but also include some federal funding sources. Brief descriptions of available state and federal funding programs (summarized from the California State Rail Plan 2003-04 to 2013-14) are provided below to show the range of programs that could be used to secure funding for rail improvement projects.

State Funding Sources

Public Transportation Account (PTA)

California's Proposition 116 designated the Public Transportation Account (PTA) as a trust fund to be used only for transportation planning and mass transportation purposes. The PTA receives its monies from gasoline and diesel fuel taxes. In 2000, the Traffic Congestion Relief Program (TCRP) reallocated some gasoline sales taxes that had previously gone to the General Fund to the PTA for use in transportation projects.

PTA monies are divided between assistance to local transit agencies, and intercity rail operations, mass transportation planning and staff, and mass transit capital projects. Recently, the state's fiscal difficulties have resulted in a delay of the transfer of these tax revenues to the TCRP and the Transportation Investment Fund (TIF).

State Highway Account (SHA)

The majority of funds in the State Highway Account provide for highway projects, but rail projects in the State Transportation Improvement Plan (STIP) are also eligible for SHA monies, which are also received from state gasoline and diesel fuel sales taxes, as well as vehicle weight fees and some Federal Trust Fund monies.

SHA funding can be used for "the research, planning, construction, and improvement of public mass transit guideways (which includes intercity, commuter and urban rail, and electric trolley bus services) and their fixed facilities." Funds from SHA cannot be used for the acquisition and maintenance of mass transit vehicles or for operating costs.

Traffic Congestion Relief Fund (TCRF)

Chapter 91, Statutes of 2000 (AB 2928 – Torlakson) established the Traffic Congestion Relief Program (TCRP) to be funded from the TCRF. The TCRP specified a list of projects to be funded from the program, including specific intercity rail capital projects. The PTA section (above) provides the sources for the TCRP. While money is scheduled to be provided to fund intercity rail projects in the coming fiscal year (2005-2006), it is uncertain given the State's fiscal situation if this will take place.

Tribal Compact Bonds

Chapter 91, Statutes of 2004 (AB 687 – Nunez) ratified the amendments to the State Gaming Compacts. The bill authorized the issuance of bonds to be secured by gaming revenue, whose proceeds would fund transportation improvement projects. According to the Statute, the PTA would receive $275 Million and the SHA would receive $457 Million. It is not clear when these revenues will materialize.

The Passenger Rail and Clean Air Bond Act of 1990 (Proposition 108)

The Passenger Rail and Clean Air Bond Act of 1990 was one of three bond measures put to the voters for approval (the other two, in 1992 and 1994, were not approved) to fund new rail projects and improvements. Funds from this bond measure have largely been expended.

Clean Air and Transportation Improvement Act of 1990 (Proposition 116)

This proposition provided a one-time source of funds for rail and transit totaling $1.99 Billion. Most of these funds have been allocated for intercity rail capital projects, urban and commuter rail projects, and transit and transit-related projects.

Federal Funds

Federal funding for rail station projects has been provided in the past from the Federal Transit Administration's Section 5307 and 5309 capital programs. Unfortunately, funds from the Surface Transportation Program are not available to finance intercity rail projects.

Congressional bills under consideration include provisions that might allow for long-term bonding authority for rail capital projects on qualifying systems (the Pacific Surfliner and the other State-supported corridors would qualify). Tax credits would be provided in lieu of interest to the bondholders. Funds from these bonds could be used for the purchase of high-speed rail equipment, grade separations, stations, and other upgrades. The federal government would require a 20% state match to access these funds.

Amtrak Funds

Amtrak supports 30% of the Pacific Surfliner Route. Amtrak's investment has largely been in the form of maintenance facilities and rolling stock. Amtrak's Five-Year Strategic Plan (FY 2005-2009) calls for $41.5 Million in spending on California projects (contingent on Amtrak receiving continued federal funding), and an additional $48.6 Million for projects that impact California indirectly.

Local Funds

Cities and communities throughout the state have expended local funds to help provide improvements within their cities (generally station, track, or signal improvements). Frequently, local monies are used in combination with available state funds to help pay for improvement projects.

In summary, given the State's current and foreseeable budget difficulties, and the relative lack of available funding as a result, it will be important for local leaders and regional transportation agencies to champion projects within their counties and provide local funding to leverage available state and federal dollars. Using local sales tax revenues dedicated to fund transportation projects is one such potential means for bringing important projects on-line more quickly.

Programming Projects

The Statewide Transportation Improvement Program (STIP) contains all the projects to be funded by the state. The process for projects moving through the STIP involves the:

- Prioritization of projects
- Programming of funds to pay for them
- Allocating the fund once the monies have been received
- Moving forward with a project.

The Strategic Plan serves as the initial step in the STIP process, by providing a prioritization of rail improvement projects for the LOSSAN North corridor.

Identifying Lead Agencies for Projects

Depending on the funding sources available, the Department, Amtrak, a regional transportation agency, a county, or a city may serve as the lead agency for a particular rail improvement project. Funding will likely be from a variety of sources (local, regional, state, and/or federal). Continuing coordination between all agencies and project stakeholders will be important.

The Environmental Review Process

All projects will need to have an appropriate level of environmental review. Some projects can be expedited, such as projects that can be completed within the existing right-of-way. In those cases a categorical exemption or negative declaration should be pursued.

Permitting Issues

Identification of permitting issues for each project should be developed early in each project. This will facilitate timely discussions with those responsible agencies which would issue permits for construction of a project, such as the California Coastal Commission.

Potential Amtrak-related Issues

Amtrak is subject to an annual appropriation process. The Bush Administration has proposed no federal funding for Amtrak intercity services in Fiscal Year (FY) 2006. The Amtrak Board of Directors has requested $1.82B in funding for its legislative and grant request. Should Amtrak not receive federal funding for the coming fiscal year, the Pacific Surfliner service would face a shortfall of approximately $10 million dollars. The Pacific Surfliner, as a State-supported service, would continue, but would be impacted. Leasing of Amtrak-owned trainsets would need to be arranged.

Next Steps

Following a period of public comment and document revision, the LOSSAN North Strategic Plan will be finalized. The LOSSAN North Strategic Plan will be integrated with the Strategic Plan developed earlier for the LOSSAN South corridor. The combined documents will serve as an important tool for the future development of the LOSSAN rail corridor.

Integration of the LOSSAN North and South Corridors

For the LOSSAN South corridor the Department, in partnership with the Federal Railroad Administration (FRA), is in the process of finalizing a Tier 1 Environmental Impact Statement/Environmental Impact Report (PEIR/PEIS). This program-level document comprises projects throughout the LOSSAN South portion of the corridor. The program-level review makes projects available for federal rail funding. The PEIR/PEIS considers cumulative potential impacts of the projects and identifies potential mitigation strategies, which can help expedite project-level environmental clearance.

The Department, in consultation with the appropriate stakeholder groups, could make a decision in the future as to whether or not a similar Program-level examination of the projects in the LOSSAN North corridor is desirable, or whether to move directly to individual project-level environmental review of projects.

LOSSAN Corridor-wide Strategic Plan Summary

The executive summaries and other important highlights from both the LOSSAN North and LOSSAN South Strategic Plans will be combined to create a LOSSAN Corridor-wide Strategic Plan Summary. This document will serve as an introduction to and summary of the two Strategic Plans and an overall guide to the entire 351-mile LOSSAN rail corridor.

Implementing the Rail Improvement Projects

The LOSSAN North Strategic Plan has documented the purpose and need and outlined a schedule for improvements to the coastal rail corridor. The LOSSAN Corridor-wide Strategic Plan will provide the Department, Amtrak, LOSSAN and its member agencies, as well as SCRRA, NCTD, and UP with a program of projects and priorities they can use in programming projects for implementation and construction. As federal, state, local and other funds become available, this document will serve as the first step in improvements to the LOSSAN rail corridor.

Appendix A: Stakeholder, Public Information Meetings

This section provides additional detail on the meetings held during the development of the LOSSAN North Strategic Plan.

Stakeholder Meetings

Table A-1 provides information on the groups, dates, and locations at which stakeholder meetings and presentations were held.

Table A-1
LOSSAN North Stakeholder Meetings Held

Group	Date	Location
LOSSAN JPA Board of Directors	December 1, 2004	Los Angeles County Metropolitan Transportation Authority, MTA Gateway Center, Los Angeles
San Luis Obispo Council of Governments	December 8, 2004	San Luis Obispo Board of Supervisors Chamber, San Luis Obispo
Santa Barbara County Association of Governments	December 16, 2004	County Administration Building, Santa Barbara
Santa Barbara Stakeholders Meeting	December 16, 2004	County Administration Building, Santa Barbara
Coast Rail Coordinating Council	January 21, 2005	The Inn at Spanish Bay, Pebble Beach

Public Information Meetings

Table A-2 provides information on the four public information meetings held during the development of the Strategic Plan.

Table A-2
Public Information Meetings Held

City	Date	Time	Location
Oxnard	March 1, 2005	4:30 – 6:30 p.m.	Oxnard Public Library 251 S. A. St., Rm. B
Santa Barbara	March 2, 2005	5:00 – 6:30 p.m.	County Administration Building 105 E. Anapamu St.
Santa Maria	March 3, 2005	12:00 – 1:30 p.m.	County Government Center 511 E. Lakeside Pkwy.
San Luis Obispo	March 3, 2005	4:30 – 6:30 p.m.	City/County Library

Description of Presentation Boards and Materials

A series of presentation boards were developed for the public information meetings. The presentation boards provided attendees with information on the LOSSAN North corridor, including:

- The Study Context – This board detailed the purpose of the LOSSAN North Strategic Plan and the need for rail improvements within the corridor. The board provided information about the growth in population and employment within the corridor, and showed an increasing demand for rail travel and freight goods movement which is constrained by the existing conditions on the rail corridor. It noted the need for increased track capacity, upgraded track and signals, improvements to rail safety, and a desire for increased modal connectivity.
- Rail corridor facts – This board described current and proposed rail services, and some facts about the corridor (its length and existing conditions)
- Current and projected train volumes (of existing and proposed rail services)
- Types of rail improvement projects under consideration, including:
    - Track and signal upgrades
    - Construction of second/third main tracks
    - New sidings and extension of existing sidings
    - Curve realignments
    - Grade separations, and
    - Station improvements
- Proposed timeline for projects
- Projects by county – Los Angeles, Ventura, Santa Barbara, and San Luis Obispo
- The Planning Process / Next Steps

In addition to the presentation boards, copies of relevant reports relating to the LOSSAN North Strategic Plan were available. These reports included:

- The LOSSAN South Strategic Plan (October 2003)
- Amtrak 20-Year Plan, and
- California State Rail Plan

Appendix B: Ventura-Santa Barbara Intercounty Commuter Rail Service – Technical Data (To be added)

Appendix C: Glossary (To be added)